

Smart Computing[®]

& CONSUMER ELECTRONICS

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In Plain English

March
2008
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Solve Common PC Problems

Operating System

Networking

CD/DVD Drive

Hard Drive

Video/Audio

Memory

Email

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QUICK FIXES FOR YOUR PC

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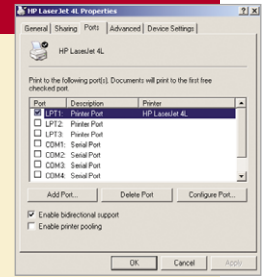


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Staff Picks

Our writers and editors select their favorite hardware. See what the experts would buy.

How To Solve . . .

Microsoft Excel 2007 Problems

Microsoft Word 2007 Problems

Problems With Firewalls

Quick Studies

Broderbund Print Shop Deluxe 22

Produce A Periodic Newsletter

Email

Hire A Personal Assistant

Microsoft Works 2006

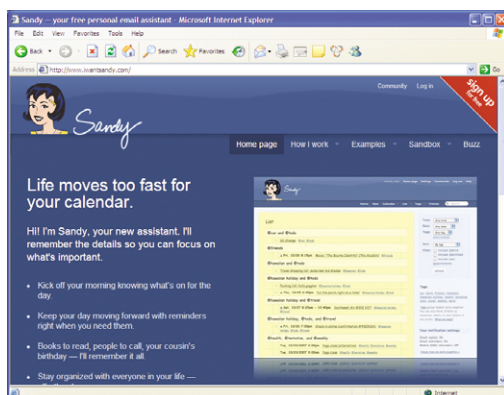
Digital Image's Mini Lab

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Block Ads & Pop-Ups

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Edit Existing Templates



Email

Consumer Electronics

We tell you what you really need to know about various types of consumer electronics products. This month we cover:

TV Mounting Options

iPods

Digital Cameras



Fujifilm Finepix Z



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EDITOR'S NOTE

Technical support is at the heart of *Smart Computing*, and with this issue we provide an abundance of information meant to help you solve common problems with personal computers. Everyone who uses a PC occasionally experiences the frustration of applications that won't run, peripherals that won't work, or connections that won't . . . well, connect. Many of these problems have simple solutions, but unless you know where to start and what to look for, figuring out how to fix an ailing PC can be a maddening exercise. Our articles will help you get the answers you need as quickly as possible.

For additional technical help that is beyond the scope of these printed pages, we urge you to take advantage of the Technical Support Center on SmartComputing.com. We have extensive resources online that will help you find the information you need to solve all kinds of problems with computers and other personal electronic devices.

One other quick note:

March is a month for changes. The last blasts of winter segue to the first hints of spring; children head outdoors to play; what was gray turns green. Here at *Smart Computing*, some changes are afoot, as well. While I have enjoyed filling in as publication editor recently, I'm happy to announce that starting next month, Senior Writer Joshua Gulick will be stepping into that role. I'm sure many of you are very familiar with Josh's work, as he has written for *Smart Computing* as well as for several other Sandhills Publishing magazines for a number of years. Now his technical expertise and insights on the computing and consumer electronics industries will help shape *Smart Computing's* content both in print and online.

Ron Kobler
Editor-in-Chief

Now Available On Newsstands . . .



Computer Power User Boost Your PC's Performance

This month in *CPU*, get a plethora of proven BIOS tweaks, Windows tips, and hardware adjustments you can use to make your PC faster and more stable.



PC Today Best Mobile Services

Need to transfer funds, find a restaurant, or hold a meeting with a client over the Internet? If all you have is a smartphone or notebook PC, you're in luck. There are scads of mobile services out there; this issue of *PC Today* points out some of the best.



First Glimpse Upscaling Your Home Theater Experience

With dropping HDTV prices and a cornucopia of compatible accessories that can boost your audio and video content to its fullest potential, it couldn't be a better time to upgrade your bland, outdated TV room into a spectacular home theater. In this issue of *First Glimpse*, we'll show how and what you'll need in order to upscale your home theater experience.



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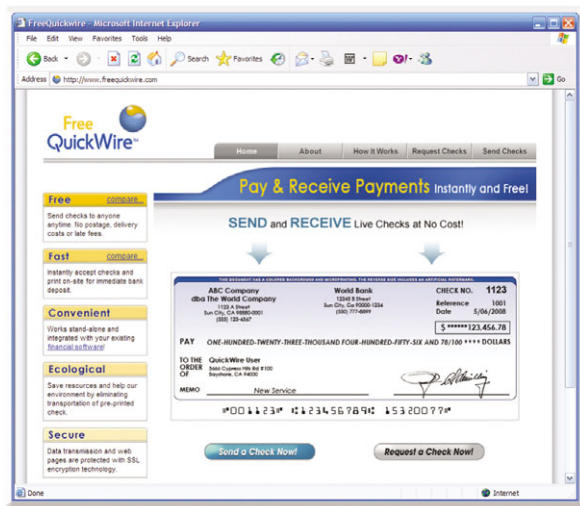
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- 2 The FreeQuickWire service securely transmits the check information over the Internet and notifies both the check sender and the recipient by email that a check has been sent. The service also keeps track of check delivery and print status.
- 3 The check recipient can then print out the check using bank-compliant MICR ink/toner supplies and blank security check paper.

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DESKTOPS & LAPTOPS

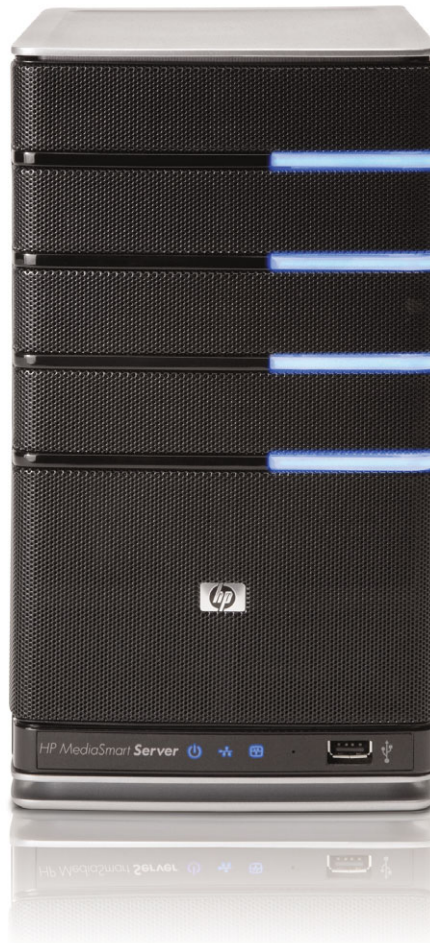
Home-based Servers Become Reality

As home PCs grow ever more packed with music, pictures, and video, the task of effectively sharing that content with all household members becomes more challenging. If one networked PC isn't able to access media files on another networked PC—whether because that PC is off or firewall or sharing restrictions prevent the sharing—frustration levels can quickly rise.

With the introduction of Windows Home Server, Microsoft appears to understand this mounting challenge. Years ago, the idea of a home-based server sounded like overkill, but today the concept seems to make more sense. A central hub that holds all of a family's digital media and serves as a backup repository can be a highly useful tool, and Microsoft's Windows Home Server operating system features easy configuration and a variety of plug-ins for tasks such as home automation and others.

Beyond boosting the efficiency of the home network itself, these systems let users access their files and applications from any computer that's connected to the Internet. They also allow users to stream digital content to other devices, such as televisions and stereo systems, and iTunes libraries can be copied from networked PCs to the server for streaming.

Home Server-based products are hitting the market in affordable configurations designed to attract users new to the concept of a home server. One of these is HP's MediaSmart Server, which comes in two versions: the EX470 (\$599.99; www.hp.com) and the EX475 (\$749.99). The



HP's MediaSmart EX470 takes advantage of Windows Home Server to provide a finely tuned system for managing media files, storing backups, and providing other uses for home networks.

EX470 features an AMD Sempron 1.8GHz processor, 512MB of DDR DRAM (double-data-rate dynamic RAM), Gigabit Ethernet, four USB 2.0 ports, and a 7,200rpm 500GB hard drive with three empty bays for storage expansion. The EX475 includes the same components but has an impressive 1TB (two 500GB hard drives) of storage. The servers give owners the ability to create a photo Web site using HP Photo Webshare that lets them share pictures and video clips with people they designate.

Other companies are also hopping aboard the Home Server train. Iomega, known for its storage devices, will be releasing the expandable 500GB HomeCenter Server, complete with four swappable drive bays. Also set for release is the Scaleo Home Server from Fujitsu Siemens. This server features an Intel Celeron processor, four drive bays (preconfigured with either one or two 500GB hard drives), 512MB of DDR2 RAM and 256MB of flash memory, Gigabit Ethernet, and four USB 2.0 ports. ■

STORAGE

Drives Serve Data In A Flash

The age of the SSD, or solid-state drive, is nearly upon us. Unlike conventional hard drives, SSDs have no moving parts and provide a bevy of benefits over their brethren. Because the drives don't have platters that need to spin up to retrieve data, SSDs start far more quickly than conventional drives. Further, SSDs feature faster boot and application launch times, much lower seek times, and the potential for longer lifetimes.

Toshiba recently announced its entry into the SSD market with NAND flash-based SSDs covering form factors designed for notebook PCs. The drives will be available in capacities of 32GB, 64GB, and 128GB, and form factors of 1.8-inch and 2.5-inch drive enclosures, as well as embedded.

The company's new drives integrate an MLC (multilevel cell) controller that supports fast read-write speed, parallel data transfer, and wear-leveling. The MLC-based drives are capable of achieving performance levels comparable to those of single-level cell NAND flash-based SSDs. According to Toshiba, the maximum read speed is 100MBps, while the maximum write speed is 40MBps.

Mass production of the embedded SATA (Serial Advanced Technology Attachment) SSDs is expected to begin this month, while the 1.8-inch and 2.5-inch SATA SSDs will begin mass production in May. ■



SSDs, or solid-state drives, use flash technology to provide much faster data read and write times than traditional, platter-based hard drives. Toshiba's SSDs are expected to begin production this month.

DISPLAYS

Breaking Down OLED Displays

As production models of OLED (organic light-emitting diode) displays are already emerging overseas, consumers are beginning to look around for any information they can unearth on the next-generation technology. That task was helped when the Nikkei Electronics Breakdown Team, from the Japanese-language magazine *Nikkei Electronics*, obtained a Sony 11-inch XEL-1 OLED TV and poked about its insides.

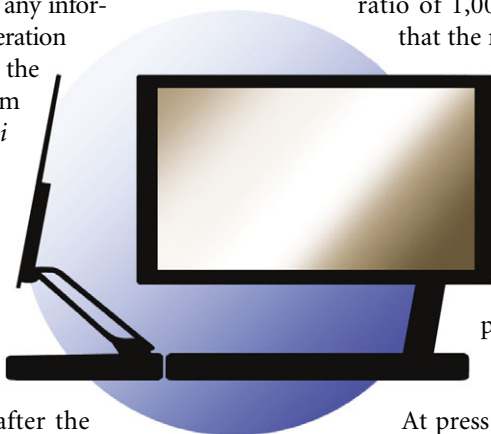
Demand for the displays is understandably high, and the team noted that it strategically placed its order at the precise time that the SonyStyle Japan Web site would begin accepting reservations. Indeed, the reservations ended only a few hours after the team completed its reservation process.

After inserting the necessary card required to receive digital television, the team obtained a broadcast and watched a

high-contrast image of a total solar eclipse. While the images appeared vivid thanks to the display's high contrast ratio of 1,000,000:1, the Breakdown Team noted that the red and green hues appeared more saturated than LCD and plasma TVs, and the images appeared too vivid.

Inside the OLED display unit, the team observed what it called "unusually strong measures being taken against heat," including a heat dissipation unit that integrated a radiation fan and heat-pipes, as well as heat radiation sheets attached to the back side of the mainboard and the unit.

At press time, Sony's XEL-1 television is available only in Japan. However, ambitious consumers can find it available for special order on the Web. For example, Dynamism.com lists it for a mind-boggling \$2,379. ■



PRINTERS & PERIPHERALS

Photo Printing On A Budget

If your home printer doesn't print great photos but does everything else well, it can be difficult to justify buying an expensive new printer just to enjoy better-quality photos. However, thanks to dropping prices on dedicated photo printers, it's possible to own two printers without breaking your budget.

One example is HP's Photosmart A526 Compact Photo Printer, which retails at a mere \$99.99. The A526 features a 2.4-inch LCD for previewing pictures, which can be printed at resolutions up to 4,800 x 1,200dpi (dots per inch). For the ultimate in convenience, users can bypass using their computer altogether to print photos, because the A526 allows insertion of memory cards with stored photos.

In addition to PictBridge support, memory card support is provided for CompactFlash, Memory Stick, Memory Stick

Duo, SD (Secure Digital), MultiMediaCard, Secure MultiMediaCard, xD-Picture Card, and Mini SD (with nonincluded adapter).

The printer also includes several photo enhancement technologies, including automatic red-eye removal, photo brightening, smart focus, HP Adaptive Lighting, and digital flash. The A526 weighs just 2.69 pounds, supports Windows XP and Windows Vista, and uses an HP 110 tri-color inkjet print cartridge. HP also offers a \$39.99 Bluetooth adapter that lets users print photos from camera phones or other Bluetooth-enabled wireless devices. ■



HP's Photosmart A526 Compact Photo Printer features a built-in LCD preview screen and provides support for a wide variety of memory cards.

CPUs, CHIPS & CARDS

Research Team Takes Aim At The IC

Take a look at your computer. Or your cell phone. Or your DVD player. Or your GPS (global positioning system). They all have one thing in common: integrated circuits. In fact, all advanced electronic devices today use integrated circuits, which contain tiny transistors, diodes, capacitors, and resistors within or on a super-thin slice of semiconductor material.

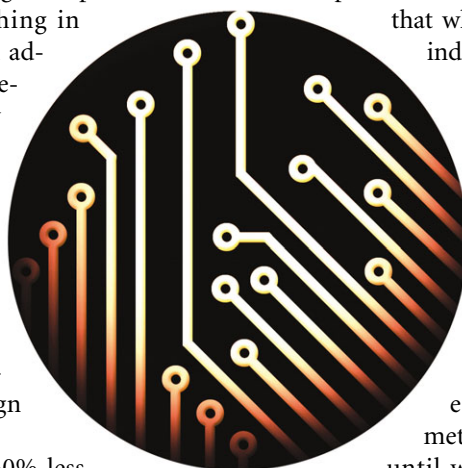
Advances in integrated circuits can require massive overhauls of existing production equipment to achieve better performance, but a team of UCLA scientists has revealed an advancement that boosts computer-aided design through better mathematical algorithms.

"We can get circuits designed with 30% less wire length using improved optimization than what we had demonstrated three years ago, based on circuits that

were samples from [the] industry," said Jason Cong, UCLA professor and chair of computer science. "We believe that when you apply these methods to current industry circuits, you will see similar gains."

Instead of focusing on the creation of smaller transistors and thinner wires, the team has focused on improving the design of the chip itself. In particular, the team is targeting nodes, which are spread across an integrated chip's surface and number in the tens of millions.

"We want to minimize the wire length in each node. . . . We use a mathematical technique called multiscale methods, in which we group nodes together until we get a mathematical problem that is small enough to solve," explained UCLA mathematics graduate student Eric Radke. ■



DIGITAL MISCELLANEA

Can't Pick One? Pick Both

In the continuing format war between HD DVD (high-definition DVD) and Blu-ray, many consumers find themselves hesitant to make a major investment in one technology or the other. However, PC owners appear to be in the best situation, according to a recent study.

"ABI Research expects high-definition drives to bring in revenues of about \$2 billion by 2012," said principal analyst Steve Wilson. "Of that, about two-thirds will be accounted for by universal drives, which can play either format. Few universal drives are sold today, partly because of their high

price. But those prices will fall about the same as Blu-ray players by 2009, and we forecast universal player sales to exceed Blu-ray the following year."

The research firm also noted that high-definition video processing will gradually be integrated with existing graphics chipsets, so separate graphics accelerators won't be necessary to play the content. Already, major chip manufacturers, such as Intel and AMD, have plans for HD support in their roadmaps for this year.

At press time, PC Blu-ray drives were retailing for less than \$200, while HD DVD drives were available for about \$160. Universal drives that can accommodate both formats are also available—but are more difficult to find—and retail for about \$300. ■



Universal PC drives, such as this LG Electronics GGC-H20L (\$299.99; us.lge.com), give PC owners insurance in the HD (high-definition) format wars.

PROBLEM-SOLVER: TROUBLESHOOTING THE NEWS

I dropped my PC case while moving it, and now my hard drive is making noises.

Most hard drives aren't built to withstand major shocks, so it's likely you damaged the inner moving parts of your drive. If you're still able to access data on your drive, immediately back up all important data to another drive or to a CD or DVD, because clicks or other noises from a drive generally signal its impending death. Replace the drive as soon as possible.

The display on my LCD isn't very sharp. How can I improve it?

Check your refresh rate. Although CRT (cathode-ray tube)

monitors generally benefit from higher refresh rates, the same settings can wash out images on an LCD monitor. Right-click an empty spot on the Desktop, click Properties, choose the Settings tab, and click Advanced. On the Monitor tab, select 60 Hertz under Screen Refresh Rate and click OK.

My network printer takes several minutes to print a single page.

If your printer waits a long time before starting a printing job, make sure you're using the latest drivers directly from the printer manufacturer's Web page. If that does not solve the problem, check to

see that the printer is using the latest firmware.

After flashing my BIOS (Basic Input/Output System), I'm constantly prompted to install RAID (redundant array of independent disks) drivers.

If you encounter this nagging problem after flashing your motherboard's BIOS to the latest firmware version, check the flashing utility. Some utilities, such as that included with recent Asus boards, include an option to set the CMOS (complementary metal-oxide semiconductor) to default settings. If you find that option, use it. ■

CONVERGENT TECH: PDAs & SMARTPHONES

Voice Gets A Text Makeover

More than ever, smartphones help us overcome the hassles of everyday life by pulling most of our communications into one device. Yet even within this form factor, certain inconveniences can leave consumers wanting even more from their smartphones.

For example, imagine you're in a meeting and your smartphone vibrates to indicate you've received a voicemail. To avoid appearing rude, you're forced to wait until after the meeting to listen to the message. However, some developers have attacked this problem by creating technology that converts voicemails to text messages.

Alltel Wireless and SpinVox recently announced the availability of a service called Voice2TXT, making Alltel the first of the five largest U.S. wireless carriers to offer the voicemail-to-text ability. "Our customers will appreciate the fact that they no longer have to wait for the opportune time to listen to a voicemail," said Craig Kirkland, director of messaging and voice services for Alltel Wireless. "With Voice2TXT, our customers have an easier way to manage their voicemails via text messages when they are in a meeting, on-the-go, or anyplace where they cannot or do not wish to use traditional voicemail."

Customers can select from several Voice2TXT pricing tiers, including \$4.99 per month for 20 voicemail



conversations (each additional is 25 cents); \$9.99 per month for 50 conversations (each additional is 20 cents); and \$19.99 per month for 100 conversations (each additional is 10 cents).

The SpinVox technology uses a combination of artificial intelligence, voice recognition, and natural linguistics to create its Voice Message Conversion System, which captures spoken words and converts them to text. SpinVox supports the conversion of voice into text in four languages—English, Spanish, French, and German.

Speech recognition is quickly growing into an industry-wide phenomenon as the popularity of mobile devices continues its upward trend. Google, for its part, appears to be investing heavily in the technology, even using one of its popular services as a

breeding ground for speech research. In an interview last fall with IDG News Service, Marissa Mayer, Google's vice president of Search Products & User Experience, revealed that the company's GOOG-411 service has a speech-focused motive.

"The speech recognition experts that we have say: If you want us to build a really robust speech model, we need a lot of phonemes, which is a syllable as spoken by a particular voice with a particular intonation. So we need a lot of people talking, saying things so that we can ultimately train off of that," Mayer told IDG. "So 1-800-GOOG-411 is about that: getting a bunch of different speech samples so that when you call up or we're trying to get the voice out of video, we can do it with high accuracy." ■

DULY QUOTED

"What you want is for the kids to do the repairs. I think the kids can repair 95% of the laptops."

—Nicholas Negroponte, founder of the One Laptop Per Child Project, describes the maintenance solution for the project's XO laptops, which don't include tech support.

Source: Associated Press

**What do ambitious
Web engineers do
with too much time
on their hands?**

with too much time
Web engineers do
What do ambitious

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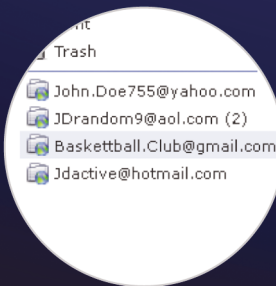
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Our Most Common Tech Calls

COMPILED BY KYLEE DICKEY

Each month, we receive numerous technical support calls and email messages. Some computer problems are fairly common, and we find that many callers struggle to resolve the same issues. In this article, we cover five of the most common or timely tech support questions and provide our solution for each of them.

Q Every time I start AIM (AOL Instant Messenger), the Web site AIM Today (www.aimtoday.com) automatically opens in my Web browser. I do not want to visit this site every time I use AIM. Is there a way to disable this feature so that the page doesn't load automatically?

A Yes, there is a simple fix for this problem, and you only need to know where to find the proper setting in AIM's configuration options. In the AIM Buddy List window, click the Edit menu and Settings.

On the left side of the window, you'll see a menu with options such as General IM, Enhanced IM, and Mobile. Click the Sign In/Sign Out option on the menu. Under When I Sign In, Display The Following, click to select the None radio button. Then click the Save button. The next time you start AIM, the AIM Today site should not load automatically.

Q Now that I have disabled AIM Today in AIM, I would also like to change the settings so that AIM doesn't automatically start every time I turn on my computer and log in to Windows. Is there a way to better control when AIM runs? I don't need it to run all the time.

A Yes, just go to your Buddy List window and click the Edit menu and Settings. Then click Sign In/Sign Out on the left side of the window. Make sure that the Start AIM When Windows Starts checkbox is not selected.

If you don't want AIM to consume Windows' system resources at all unless you specifically open AIM, make sure that the Minimize To System Tray And Do Not Sign In checkbox is not selected. If you select the Minimize To System Tray And Do Not Sign In checkbox, AIM won't automatically run when you start Windows. However, the AIM icon will appear in your System Tray. This will provide quick access to AIM when you're ready to use it, but the item in the System Tray will, like all items in the System Tray, require some extra system resources and some time to load when Windows starts. Finally, if you want AIM to stop running when you close the Buddy

List window, just click the Sign Me Out And Exit AIM When I Close My Buddy List Window checkbox.

Once you've made all desired configuration changes, click the Save button to apply the changes. The next time you start Windows, AIM should not launch automatically.

Q How can I transfer digital images from my computer back to my digital camera or its memory card?

A The easiest way to transfer digital image files from your computer back to your camera or a memory card is to use a memory card reader. Format your memory card in your camera first. Consult the users manual for your camera if you aren't sure how to do this. Then insert your memory card in the card reader and connect the card reader to your computer.

Double-click My Computer and then double-click the icon that represents your memory card reader. Double-click My Computer again and browse to the folder that contains the digital image files that you want to transfer back to your camera. Then simply drag the files from the folder on your hard drive to your card reader. For best results, you should transfer images that you took with the same digital camera. You may have trouble displaying images on your digital camera if your camera doesn't support the same resolution as the photo you transferred. When you're ready to view the images on your camera, use Safely Remove Hardware, take the memory card out of the card reader, and insert it in your camera. You may also choose to insert the memory card into a digital picture frame to view your photos.



You may wish to transfer digital images from your computer back to a memory card so that you can view them on your camera or on a digital picture frame, such as this one, the CEIVA 8-Inch Digital Photo Frame (\$224.99; www.ceiva.com).

Q When I try to use the Cover Flow view in iTunes, it doesn't work. In the space where I should see the album artwork, I instead see white text on a black background that reads, "iTunes Cannot Display Album Artwork On This Computer." I've used Cover Flow on this computer in the past, though. Why did it stop working, and how can I resolve this problem?

A The most common cause of this error is that iTunes does not have adequate system resources to display the cover art in Cover Flow view. Usually the problem is that your video card has its hardware acceleration disabled. Cover Flow has greater video card requirements than other views in iTunes, so if hardware acceleration is turned off, your video card will not be able to support the advanced graphics in Cover Flow view. If you need help adjusting the hardware acceleration, visit the *Smart Computing* Tech Support Center (www.smartcomputing.com/techsupport) and search for hardware acceleration.

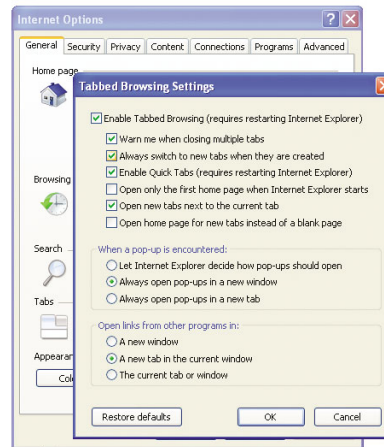
This problem with Cover Flow occurs less frequently on Macs than on PCs. However, because Mac OS X handles video card settings automatically and does not have an option to enable hardware acceleration, it can be confusing to resolve this error on a Mac. Sometimes, if you are running low on hard drive space, your system may not have adequate virtual memory to complete its tasks, so it will automatically turn off some tasks that consume virtual memory. Among the items OS X may disable are the advanced graphics capabilities in iTunes. In most cases, simply restarting your Mac will resolve the error. If this error message persists, check the available space left on your hard drive. If you are running low on available hard drive capacity, try to clear up some space so that your computer has more space available for virtual memory.

Q I like the new tabbed browsing feature in Internet Explorer 7; however, when I load a page in a new tab, I would like that tab to come to the foreground. By default, though, IE7 opens new tabs behind the current one, and I have to click the new tab to view that page. Is there a way to make IE7 automatically switch to a newly created tab?

A Yes, IE7 does provide a setting that makes new tabs come to the foreground when created. In IE7, click the Tools menu and Internet Options. If you don't see the Menu bar at the top of the IE7 window, press the ALT key to make the Menu bar appear.

Make sure the General tab is selected and then click the Settings button under Tabs. Click to select the Always Switch To New Tabs When They Are Created checkbox. Click OK and click OK again.

There is a reason, though, why you may want tabs to continue to load in the background. One of the most convenient aspects of tabbed browsing is that you can continue to browse content and links on the current page while another page is loading in the background. In this way, tabbed browsing lets



There is a checkbox in Internet Explorer 7's Internet Options that lets you choose whether new tabs should open in the foreground or in the background.

you make more efficient use of your time because you are not just staring at the screen, waiting for a page to load. By the time you click a tab that loaded in the background, it has usually finished loading so that you can view it. Which way you prefer tabs to open, however, is entirely up to you, and IE7 does let you select the method that's best for you. ■

Feature Package Topics

Each *Smart Computing* issue includes tips, reviews, and information about a variety of topics. However, each issue also has a featured group of articles about a selected topic. Below is a list of the Feature Packages from the previous year. As a *Smart Computing* subscriber, you have access to all of our archived articles at www.smartcomputing.com.

March 2007:	Resolve System Conflicts The Fast & Easy Way
April 2007:	Windows Vista: What You Can Expect From Microsoft's New Operating System
May 2007:	Set Up & Maintain A Wireless Network & Keep It Connected
June 2007:	Tweak & Troubleshoot Windows Vista
July 2007:	Clean It Out, Speed It Up!
August 2007:	Improve System Startup/Shutdown: Make Your PC Faster & More Stable
September 2007:	What To Do About PC Errors & Error Messages
October 2007:	Build It Yourself: How To Create The Perfect PC
November 2007:	How To Edit, Protect & Restore Critical PC Settings
December 2007:	Laptops Take Over Get It All: Power, Price & Portability
January 2008:	Time For A PC Tune-Up: Improve Speed, Performance & Reliability
February 2008:	Get More Out Of Your PC: Here's What You Can Do!

Check Out The Tech Support Center!

The Tech Support Center at SmartComputing.com has always been *the* place to find helpful information for all of your computing troubles. Check out the Networking & Communications area to find out how to install and configure your home network properly. You'll find out how to set up your wireless network, fix wireless connection problems, and much more. Be sure to take a look at the Backups & Data Recovery section, as well. This area contains articles that explain the ins-and-outs of creating system backups, recovering lost data, and other backup basics. Check out these articles at SmartComputing.com's Tech Support Center today!



1. Go to SmartComputing.com and click the Tech Support Center link on the home page.
2. Click Backups & Data Recovery or Networking & Communications.
3. Click View ALL Backup & Data Recovery Articles or View ALL Networking & Communications Articles to view articles within those areas.

Be sure to store all of your articles and information in your Personal Library to keep for future reference. Simply log in and when you find an article you would like to keep, click the Add To My Personal Library link at the top of the page. Create as many folders as you like in order to keep your information organized and accessible.

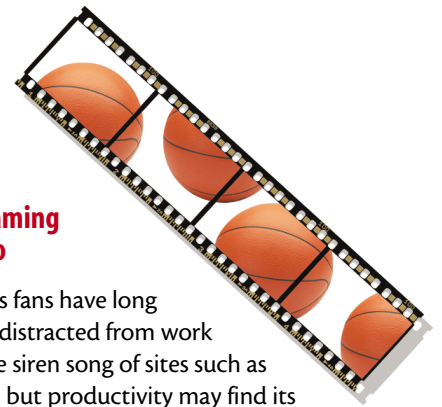
Tech Support Center

- Error Messages
- Solutions Knowledgebase
- Basic Troubleshooting Articles
- Security & Privacy
- How To Get Rid Of
- Backups & Data Recovery
- Preventive & Regular Maintenance
- Networking & Communications
- Articles On How To Install ... Just About Anything
- Driver Education
- Other Helpful Tech Support Tools



Streaming Video

Sports fans have long been distracted from work by the siren song of sites such as ESPN, but productivity may find its biggest threat this month in streaming video. Last year, CBS began offering free online access to live March Madness basketball games. We're guessing a large portion of the 1.3 million subscribers were peeking at the games from work computers.



Software Reviews

More reliable than a random Web search and more thorough than a co-worker you saw in the break room; take a look at the software reviews at www.smartcomputing.com. Click the Read Software Reviews link to read up on the latest applications.

Computing Tips

Get Smart Computing Tips, Terms, Fun Sites, and more sent directly to your inbox daily. Visit www.smartcomputing.com and click Sign Up Now to get started.



From Smart Computing's Dictionary

virus hoax

A fake computer virus warning, typically forwarded by someone using a distribution list. If you receive such a warning, you may want to investigate the claim by checking one of the numerous sites that keep current lists of active viruses and worms.



Sounds Good To Me

Surround Speakers & Easier LP Ripping Software

Marty Sems

Send your comments to
marty@smartcomputing.com

A couple of neat audio products drifted my way a few weeks ago. So did a bunch of snow, so I drifted right down to my basement to hibernate. Here's what I found.

Cerwin-Vega CVHD 5.1



CVHD 5.1

\$999.95

Cerwin-Vega

(954) 316-1501

www.cerwinvega.com

Feel like putting some thump into your home theater audio? This semipricey set of speakers will certainly do it. Attach them to your existing 5.1-channel surround sound receiver using cables you already own, and you'll have as much clarity and volume as you (well, your receiver) can handle.

To start with, the powered subwoofer is nearly the size of an endtable. Its monstrous 12-inch cone lays a deep but articulate foundation of bass under your music or movie soundtracks. Meanwhile, the five satellite speaker banks (right and left, rear right and left, and center) are each 2 feet tall or wide (the center channel lies down). They ably handle the rest of the dynamic range with six 3-inch drivers and one 1-inch tweeter each. The set comes with stands and wall mounts.

Everything I played through the CVHD system sounded immediate, close, and real. What higher compliment could there be?

Acoustica Spin It Again

Plenty of readers have been writing in about my "Project Vinyl Rescue" column about turning old LPs into music files and CDs (see the January issue, page 18). A common thread in the correspondence has been, "What about this other turntable?" and, "Have you tried such-and-such software?"

In my column, I wasn't totally satisfied with the software included with my Stanton T.90 USB Turntable (\$399; www.stantondj.com), so I turned to the Nero Ultra Edition (\$79.99 to \$99.99; www.nero.com) suite to take the crackles and pops out of my recordings. Trouble is, Nero isn't exactly cheap, and there's a bit of a learning curve, even for users familiar with its quirks.

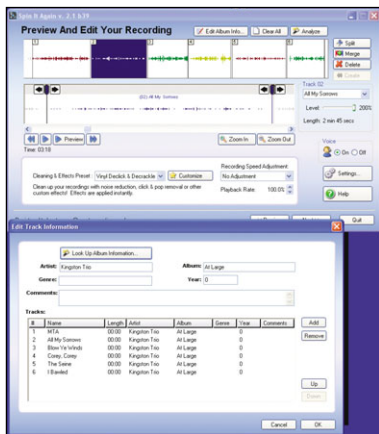
Many readers may be better served by a program that's dedicated to LP ripping, editing, and burning, from start to finish. Actually, Acoustica's Spin It Again will walk you through the process of importing any audio source you can pipe into your PC, including audio cassettes, and turning it into files and discs. (*Smart Computing* took a look at an earlier version in the June 2006 issue.)

I still had my Stanton turntable on hand, so I installed Spin It Again and ripped the Beach Boys' "Surfin' USA" and the Kingston Trio's "At Large." The software literally tells you what to do next and why. (You can disable the dulcet female voice prompts if they freak you out.)

I often had to adjust Spin It Again's automatic track boundaries, as they usually cut off the quiet beginnings and endings of songs. Also, Acoustica touts the software's ability to play back audio as you record it, but there was a delay of about a second between what the needle picked up and what the PC's speakers played.

Still, everything in Spin It Again is clearly labeled, and it doesn't take long to get the hang of it. There's enough adjustability in the equalization, editing, and decrackling settings to satisfy 90% of amateur audio restorers like me. Once I dialed in the EQ and noise cleaning settings that sounded the best, the resulting CDs sounded just about as good as the discs I'd made with the more in-depth Nero. Oh, and Spin It Again didn't take nearly as long to save altered audio files as did Nero WaveEditor.

Acoustica throws in a free download license for a "lite" version of its CD-DVD Label Maker application. I'd like to see Spin It Again weigh in at the \$29.95 or \$24.95 mark instead of \$34.95, but there's no denying the software's convenience and ease of use. ■



Spin It Again 2.1

\$34.95

Acoustica

www.acoustica.com

Video From The PC To TV

As Easy As Saying, "USB"

Blaine Flamig

Send your comments to
blaine@smartcomputing.com



Sometimes, there's no substitute for simplicity. Ask a typical hardware or software buyer what traits are important in a product and he'll commonly tell you, "I want something that's easy to use and that just works." I don't consider myself a typical buyer—any more. I've been around technology long enough now to have learned a thing or two, despite often getting in the way of myself.

But there was a time when "simplistic" defined me tech-wise—when I wasn't capable of sending an email. I came to the tech party comparatively later than most of my colleagues, so I know what it's like to look in on technology from the outside, wanting to be included but lacking the confidence to try. That's why I still value products based on simplicity. That's why products such as SanDisk's Sansa TakeTV still appeal to me.

SanDisk describes the TakeTV as a bridge between your PC and TV. Essentially, the device moves homemade and purchased video stored on a PC to a TV. It's simple because you don't need a wired or wireless network to do it. There's no need to stream media. No configuring settings. No software installs. No need to burn DVDs. If you've used a USB flash drive, you can use the TakeTV. If you've used a remote control, you can use the TakeTV. If you've connected a VCR to a TV, you can use the TakeTV. If you've used Windows Explorer (right-click Start and click Explore) to drag and drop files, you can use the TakeTV.

If you're muttering, "Nothing is ever as easy as they make it seem," I'm sorry to disappoint. Not to get too infomercial-ish here, but using the TakeTV is really four-steps easy after unpacking the box, which supplies you with the TakeTV's main player unit (about 4.5 x 1.5 inches [HxW]), remote control, and docking cradle. Plug the player into a PC's USB port; drag and drop MPEG-4 (Moving Picture Experts Group-4), DivX, and Xvid

video files to the player via Windows Explorer; connect the cradle to your TV's RCA (red and white) jacks and composite video (yellow) or S-Video inputs; and plug the player into the cradle. That's it. TakeTV's menu will display your video files on your TV. Use the included remote to select a video, press Play, and you're viewing. In less than five minutes, I went from unpacking the TakeTV to watching video on my TV.

To enhance TakeTV, SanDisk offers paid and ad-supported free content at its Fanfare Beta Web site (www.fanfare.com). Video from the site downloads directly to the TakeTV player, and TV and movie programming is available from CBS and Showtime, among others. SanDisk recently inked a deal with NBC Universal and should have programming as you read this from NBC, the USA Network, Bravo, and the SCI FI Channel the day after programs air.

What's the catch? Fanfare downloads are only possible on Windows Vista and Windows XP systems now, although the TakeTV player supports Mac and Linux systems. Additionally, TakeTV wouldn't play JPEGs (Joint Photo-graphic Experts Group) or other photo formats on my TV. Also, you'll need to convert WMV (Windows Media Video) and other formats to one the TakeTV supports. (DivX, for example, offers a free trial converter at www.divx.com.) Still, the TakeTV works as a USB flash drive to transfer content, supports 4:3 and 16:9 aspect ratios, and supports NTSC (National Television System Committee) and PAL (Phase Alternate Line) television formats. Further, the 720 x 576 resolution looked great in my use. It comes in 4GB (\$99.99; five hours video storage) and 8GB (\$149.99; 10 hours) choices.

Simply put, TakeTV is easy to use and just works. Sometimes, that's good enough. ■



Sansa TakeTV 4GB

\$99.99

SanDisk

(408) 801-1000

www.sandisk.com

Good Sounds Come In Small Packages

Klipsch Custom-2 Headphones

Kathryn Dolan

Send your comments to
kathryn@smartcomputing.com

My first major expenditure after college, not counting a new car and student-loan payments, was a home stereo system. In addition to an NAD receiver and Bang & Olufsen turntable, the system sported coffin-sized Klipsch speakers. The sound was jaw-dropping, and my little house rocked—usually until the neighbors called and more or less asked me to turn down the volume.

Over the years, I've swapped out all of the components in the system and downsized to more room-friendly Klipsch Surround Speakers, but I still count the amazing sound my home audio system puts out as one of my greatest pleasures in life. What's more, my neighbors almost never complain about the volume.



Incredible Shrinking Sound

Initially, the portable music player craze didn't interest me much because I truly love big sound. I want to feel, not just hear, chest-rattling bass and room-shaking, immersive surround sound. I associated pocket-sized players with tinny sound sent through uncomfortable earbuds. Leaving music home was preferable to suffering the audio degradation and discomfort necessary to have taken it with me.

But just as speaker manufacturers found a way to dramatically shrink speakers while outputting exceptional sound, portable music players, combined with the right set of headphones, have also produced sound with clarity and presence.

A few months ago, I came across some Klipsch Custom-2 Headphones (\$199; www.klipsch.com), and as might be expected, the sound was amazing. The little buds fit in my ear canals, and instead of huge, hard-plastic discs, these buds are

topped with pliable silicon tips that look a bit like little mushroom caps and are so comfortable, I could scarcely feel them.

Klipsch apparently knows one size doesn't fit all, so it includes five sets of the washable tips, which it calls Contour Ear Gels, in varying sizes in the handy carrying case. Although small, the case is fairly roomy, so I tucked my 16GB Creative Zen (\$199.99; us.creative.com) and its USB cable into the case, too. Klipsch designed the headphones for the Apple iPod (www.apple.com) and iPhone, but as long as your portable music player has a headphone jack, you can use the Custom-2 Headphones.

Fit Isn't All

The silicon tips are on the ends of flexible, over-the-ear wires that you can also adjust to fit your ears. The wires are thin and unobtrusive, so if you wear glasses, the wires hug the curve of your ear and won't displace your glasses. You'll know when you've adjusted the wires properly because not only will the Contour Ear Gels fit perfectly, but they'll also isolate some external noise, so ambient sound doesn't interfere with your music.

Because the buds fit so well, you can turn down the volume a bit, too, so you don't risk damaging your hearing.

Travel Friendly

Frequent flyers know that the headphones airlines supply frequently leave a bit to be desired audio quality-wise. Plus, who wants to use headphones that heaven only knows how many other people have used? Air travelers will be happy to know that Klipsch includes an airline adapter in the carrying case, so you can plug in your Custom-2 Headphones and listen in comfort to the in-flight movie.

Finally, fastidious types who are away from hot, soapy water can use the tiny tip-cleaning gadget that's also included in the case to give the Contour Ear Gels a quick swipe.

The extras are especially nice, but they're hardly a reason to splurge on a pair of \$199 headphones. The extraordinary sound, coupled with the comfort of the tips, though, is more than enough reason to give the Klipsch Custom-2 Headphones a listen. ■

Custom-2 Headphones

\$199

Klipsch

(800) 544-1482

(317) 860-8100

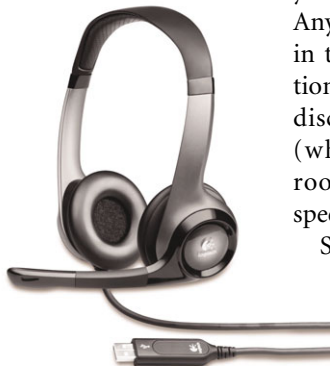
www.klipsch.com

Listen Up

Headsets Make For Great Online Chats

Joshua Gulick

Send your comments to
joshua@smartcomputing.com



ClearChat Pro USB

\$49.95

Logitech

(800) 231-7717

(510) 795-8500

www.logitech.com



ClearChat Style

\$24.99



Premium Stereo Headset

\$24.99

Until recently, I've been happy to rely on a microphone and my PC's speakers when holding video chats with my far-flung family members. This setup acts just like your phone's speakerphone function: Anyone in the room can hear and take part in the conversation. But not all conversations should be broadcast to the room, as I discovered last Christmas when a friend (who didn't know my wife was in the room) inadvertently brought her up-to-speed on a gift I'd bought for her.

So, I set out in search of a PC headset and eventually settled on Logitech's ClearChat Style (www.logitech.com). It has everything you'd expect a PC headset to have (namely, earphones and a microphone so you can listen and chat), and the price was a reasonable \$24.99. But I noticed that Logitech also offers several other headsets that cost much more than my Style. I couldn't help but wonder what I was missing by not shelling out the extra cash for Logitech's fancy ClearChat Pro USB, which has a \$49.95 price tag, and thus this review was born.

I compared three Logitech headsets. The ClearChat Style and Premium Stereo Headset represent the low (but not lowest) end of the price range at \$24.99. The ClearChat Pro USB represents the high (but not quite highest) end of the price range at \$49.95. I chatted online, listened to music, and gamed with all three.

I like the designs of all three headsets, but for different reasons. Unlike the Premium Stereo and ClearChat Pro USB headsets, the ClearChat Style has a behind-the-head band that gracefully hooks over the ears to keep the small earphones in place. That's a nice feature for people who worry about upsetting their hairstyles or who just don't like the hat-like sensation

that the other headsets can give. It's very comfortable, even for hours at a time.

The Premium Stereo and ClearChat Pro USB headsets look much like standard headsets. They have large, cushion-sporting earphones and headbands that rest on the top of your head. Although these larger earphones didn't cause any discomfort, I was always aware that I had a headset on. When using the ClearChat Style, I felt as though I wasn't wearing anything at all. The ClearChat Pro USB is slightly more comfortable than the Premium Stereo headset, thanks largely to its padded headband.

It's worth noting that all three headsets have built-in volume controls. The controls sit in-line (the volume control sits on the cable that runs from the headset to the PC) on the ClearChat Style and Premium Stereo headsets. The ClearChat Pro USB's controls sit on the right earphone. Without a doubt, the ClearChat Pro USB's controls are the best-placed and easiest to use.

Of course, comfort and fancy features wouldn't mean much if the headsets didn't provide great audio. The microphones on all three headsets have noise-canceling technology that helps to keep your voice clear and intelligible. I found that, while all of them provided clear voice to my contacts (via the mic) and great audio to my ears (via the earphones), the Premium Stereo and ClearChat Pro USB were noticeably better on both counts, with the ClearChat Pro USB providing the best audio and clearest voice. Not surprisingly, the ClearChat Pro USB, which connects to your computer's USB port (instead of the standard stereo ports) has special audio drivers that enhance the sound.

So, will I toss my ClearChat Style and buy one of the other headsets? No way. The ClearChat Style's audio quality is fine (my friends and family don't have any trouble hearing me and had no complaints about voice quality), and it's comfortable. I'd recommend the ClearChat Style and the Premium Stereo to anyone who doesn't use a headset daily. But for those who plan to spend every day chatting online, the ClearChat Pro USB is the "Clear" choice. ■

External Backup Drives

BUYING TIPS

Most of the drives we looked at come in both larger and smaller capacities, so you can choose a size that fits both your needs and your budget.

LaCie Hard Disk, Design By Neil Poulton, 500GB

✓ Systems Supported
 Windows Vista
 Windows XP/2000
 Windows Me
 Windows 98
 Mac
 Linux

If you're into music, pictures, or video—in other words, if you're like most people—the hard drive in your computer isn't that hard to fill up.

Fortunately, it's easy to add significant storage space or backup capability with an external drive. Most of what you'll see on store shelves ranges from 160GB to 1TB (1,000GB). Aside from size, the various drives you'll find on the shelves of your local big box are fairly similar. After all, drives have a fairly defined purpose: store files.

We took a look at midrange models that ring up at around \$160 to \$200 for a 500GB version. You'll be able to save some money with a smaller drive, but whether that's smart depends on your situation. If you're getting into home video, for example, more space is never a bad idea. The terabyte models, however, are still a bit pricey for the average user.

Functionally, we had no problems getting any of the drives we tested up and running via USB to a Windows XP system. With the basic hardware mission down, brands attempt to differentiate themselves two ways in the consumer market: looks and software. All of these drives come with some type of backup program, some of which work better than others. None of them is as full-featured as standalone backup solutions, but, to varying degrees, they get the job done.

Outside appearances differed much more than actual performance. Once populated by uniform plastic, uninspiring rectangular boxes, the external hard drive field is now a canvas for glowing lights and futuristic shapes. It doesn't sound like the best way to choose a hard drive, but it's something to consider for hardware that will likely be sitting out on your desk.

LaCie Hard Disk, Design By Neil Poulton, 500GB

The LaCie drive takes a minimalist approach, both in looks and functionality. We plugged the smooth, black, featureless

monolith in, and Windows immediately recognized the new gigabytes. As with many external drives, you first see a setup program that formats the drive according to the operating system you run. In the case of the LaCie, you can choose the NTFS (NT file system) format (preferred for Windows machines) or part NTFS/part FAT32 (32-bit file allocation table) for sharing files with Macs. The format doesn't take long, and your drive is ready to use.

The LaCie drive is a little cheaper than the other models in this roundup. One reason is that it only accepts USB 2.0 connections. That's fine for most Windows users, but someone looking for extra speed would miss the FireWire and eSATA (external Serial Advanced Technology Attachment) options available on some of the other drives we saw.

Another reason for the slightly lower price may be the straightforward 1-Click LaCie backup program. You can choose multiple



folders to be backed up and then choose a target drive and folder. Click a button and the backup begins. Next, well, that's it—there is no next. As backup software goes, this is as simple as it gets; no scheduling, no nothing. It's a small step up from copying and pasting manually. The program does not have a separate "restore" feature.

The back of the LaCie drive includes an on/off switch, something you might be surprised to know does not come standard on every external hard drive. Unlike some other drives, the LaCie does not turn off automatically when your computer shuts down, but the manual switch also lets you leave the drive off when you don't need it.

Western Digital My Book Home Edition, 500GB

If you plan to have more than one external drive, the My Book design is well-suited for a lineup. Drives can sit next to each other in compact vertical formation like books on a shelf, something that would be less pleasing with, for instance, the Seagate we looked at.

The My Book drive comes with eSATA, USB, and FireWire connectors all built-in, ready to hook up to whatever your computer can dish out. The eSATA option offers significantly faster data transfer speeds over



USB 2.0 and FireWire, but few computers have an eSATA port built in. If you need the speed and are handy with a screwdriver, you can add an eSATA port to many newer desktop machines for less than \$10 in parts.

My Book saves a bit of energy by automatically switching off when your computer powers down. Another nice touch is the LED (light-emitting diode) on the front of the My Book drive, which does more than simply glow. The lights roughly indicate, in thermometer fashion, how much space remains on the drive. It's not difficult to find that same information more precisely through Windows, but the lights provide a quick, convenient check.

Western Digital actually includes with the My Book Home Edition a version of the same Memeo backup software packaged

with the Seagate FreeAgent Pro. It's simple to operate. You can make multiple backup "plans" by choosing a destination for the backup (such as the external drive) and multiple folders or files to save. The program also includes preselected "smart picks" that you can choose, such as files in My Documents or Outlook email. Restoring files is also easy. You can choose to restore to the original location of the files or a new location.

One nice feature about the Western Digital/Seagate bundled software is that after the first backup, the program automatically watches for changes made to the files and folders you've chosen to protect. It then backs up anything new or different whenever your computer is idle. If the backup location (such as the external drive) is not available, the program continues to keep track of changed files and backs them all up as soon as possible.

Seagate FreeAgent Pro, 500GB

The FreeAgent drive sports a modernistic appearance with an amber glow over most of the drive. It's the least rectangular of the bunch, featuring a kind of base upon which sits the glowing gigabyte tower.

Like the My Book, the FreeAgent Pro supports all three interfaces—USB, eSATA,

Western Digital My Book Home Edition, 500GB	
✓	Systems Supported
	Windows Vista
	Windows XP/2000
	Windows Me
	Windows 98
	Mac
	Linux

Software Information

	Price	Company	Contact Information	URL	Notable Features
LaCie Hard Disk, Design By Neil Poulton, 500GB	\$159.99	LaCie	(503) 844-4500	www.lacie.com	<ul style="list-style-type: none"> Bare-bones drive that provides free space but little else Smooth exterior fits with just about any décor
Western Digital My Book Home Edition, 500GB	\$169.99	Western Digital	(949) 672-7000	www.wdc.com	<ul style="list-style-type: none"> Drive includes FireWire and eSATA connectors Multiple external My Book drives line up nicely together Backup software automatically and continuously protects files
Seagate FreeAgent Pro, 500GB	\$219.99	Seagate	(800) 732-4283	www.seagate.com	<ul style="list-style-type: none"> Automatic backup software saves copies of important files whenever computer is idle Drive includes FireWire and eSATA connectors
Maxtor One Touch 4 Plus, 500GB	\$199.99	Seagate	(800) 732-4283	www.maxtorsolutions.com	<ul style="list-style-type: none"> Easy-to-use backup and sync software Physical button on the drive itself can initiate preset backup

Seagate FreeAgent Pro, 500GB

✓ Systems Supported
 Windows Vista
 Windows XP/2000
 Windows Me
 Windows 98
 Mac
 Linux

or FireWire. However, you need to unscrew a connector on the bottom of the drive and pop in the correct one for your interface of choice. The USB and eSATA connections are on the same module.

As we noted, the FreeAgent Pro comes with a backup program by Memeo nearly identical to the one included with the My Book. While it lacks some of the features found on third-party backup programs, Memeo is hard to beat for simplicity. Set it once, and the program keeps up-to-date copies of your important files ready for the day when you need them. The software also works with other external hard drives, as well as network locations.

The FreeAgent Pro also comes with a System Rollback utility that will return your computer to a previous stable state when you encounter major problems. System Rollback is good for recovering

Maxtor One Touch 4 Plus, 500GB

✓ Systems Supported
 Windows Vista
 Windows XP
 Windows Me
 Windows 98
 Mac
 Linux



from software-related issues, such as corrupted data and certain kinds of viruses and other malware. Of course, it's not much different from the System Restore feature already available in Windows.

Maxtor One Touch 4 Plus, 500GB

Seagate actually owns Maxtor now, but for the time being the company markets both brands. One of the ways Seagate differentiates the lines, apparently, is looks. While the FreeAgent Pro is sleek and dark, the Maxtor is shiny and industrial.

The Maxtor also glows less than some drives, with a single whitish light behind the drive's solitary button, which you can link to the backup software for "one touch" file saving. The drive does, unfortunately,

have the word "Maxtor" emblazoned on the side.

The One Touch 4 Plus can connect using FireWire and USB 2.0, but not eSATA. We had it up and running with no problems, as with the other drives. Drive management software allows you to adjust the drive's power settings so that it will enter a

Maxtor®

power-saving mode after not being used for a particular amount of time.

The software included with the Maxtor drive includes a nice, polished interface. It's easy to use but also allows some customization. Users can choose a default job that backs up the My Documents folder at 10 p.m. every day, or they can choose specific folders and specific days and times. The software will automatically run the backup on schedule, or when you press the large button on the front of the drive itself.

The Maxtor drive also comes with a disaster recovery program that stores all of the data on your computer's hard drive, as well as creates a bootable CD to completely restore your entire system in the case of a major problem. This can be a lifesaver if your computer's hard drive irrecoverably crashes.

Reliable Drives

To some extent, hype and pretty lights sell these drives. None of them will beat internal drives in an all-out speed test, and the included software is fairly basic. Then again, the work most users want out of an external drive is pretty simple. You can't beat them for quickly and easily adding a vast amount of new storage space.

You may find anecdotal—and often contradictory—evidence that one drive is more reliable than another, but we'd be comfortable with any of the major brands discussed above. Of course, all hard drives are bound to fail someday, so just make sure that every file filling up those new gigabytes can be found in at least one other location. ■

BY ANNE STEYER PHELPS

BUYING TIPS

We looked at external drives meant to be plugged in at a desk and mostly left in one spot. If you need to take a drive along on travel or between work and home, take a look at mobile drives like the Seagate FreeAgent Go or Maxtor OneTouch 4 Mini. These drives are smaller and more rugged, but they also cost quite a bit more per gigabyte.

Software Reviews

\$59.90

F-Secure

(888) 432-8233

www.f-secure.com

Notable Features:

Well-respected antivirus engine; highly automated operation

Automated Protection

Internet Security 2008

Internet Security 2008 is a functional and largely automated group of utilities that many may like. It includes antivirus, antispyware, and antispam tools, plus a firewall and parental controls. Though its antiphishing and identity protection features are not as robust as some of its competitors, the program did a great job of blocking intruders for us.

It also performs well in antivirus labs. In the latest Virus Bulletin (www.virusbtn.com) test (December 2007; Windows 2000), F-Secure was one of fewer than 50% of products to attain the VB100 award. Nevertheless, the program has a few quirks that annoyed us, and we also were disappointed both by its performance on an older (1GB processor; 640MB of memory) test PC and by the full install's file size (a space-hogging 628MB).

An Overbearing Parent?

Internet Security 2008 installs quickly and preconfigures everything with standard settings, but the preconfiguration leaves a bit to be desired. During installation, F-Secure asks if you want to start with Parental Control turned on or off. If you opt for on, the product prompts you to create a Child and/or Teenager profile and create passwords. When you first open an Internet browser, the program defaults to the Child profile and redirects you to a Blocked Access page with a link to supply a password.

It would make more sense, in our opinion, for the program to generate a pop-up password box before the browser loads. Alternatively, you can switch to the Parent profile before you head to the Internet via the F-Secure icon in the System Tray.

Off To See The Wizard

At the conclusion of setup, Internet Security 2008 asks if you want to learn more about computer security. Your options here

include tutorials and a startup wizard. The startup wizard is optional, but important. If you run it, Internet Security 2008 will automatically check boxes that enable a virus and spyware scan to run immediately and schedule a weekly scan. You can deselect either of these settings but cannot edit either.

If you skip the startup wizard, Internet Security 2008 will not perform an initial scan and will disable weekly scans. Thus, we suggest you run the wizard and tweak the settings later if you don't like the schedule. Alternatively, you can skip the wizard but run a full scan and enable automatic scanning after installation.

(To open the control interface, right-click the icon in the System Tray and select Open F-Secure Internet Security 2008.)

Slow Going

The older test system that we mentioned earlier was bogged down when running this program, especially when a browser or the email client was open. The application also took a long time scrutinizing email. On the bright side, running a full-system

scan didn't appear to have any further performance impact.

Another issue with Internet Security 2008, which can be a blessing or a bane depending on the user, is that by default it makes a lot of decisions for you. For example, it automatically decides which applications to allow or deny. We found that it did an excellent job of determining which ones should have access, so this shouldn't be a problem for most. Users can adjust settings from the control interface.

Overall, we think Internet Security 2008 can be a worthwhile choice for many users—especially those with hot-rod systems who like things automated. However, we recommend everyone run the full-featured, 30-day free trial to see how it affects their PCs' performance before they make a purchase. ■

BY JENNIFER FARWELL



✓ Systems Supported

Windows Vista

Windows XP/2000

Windows Me

Windows 98

Mac

Linux

Make Working With Files & Folders Easier

Customize Windows Explorer



In the course of everyday computer use, you probably spend as much time working with Windows Explorer as any other feature or application. Not to be mistaken for Microsoft's Internet Explorer Web browser, Windows Explorer is the main user interface you use to work with files and folders—for example, when you navigate through the contents of your system through My Computer.

There are countless ways to tweak the appearance and behavior of Explorer in Windows XP. Read on for some handy tips on how to customize various aspects of Explorer including how it displays, selects, opens, or moves files, plus a bonus tip on making Task Manager easier to use.

Have Windows Remember Open Folders After Logging Off

When you log off WinXP, any windows left open are automatically closed, but you can configure WinXP to remember those windows and automatically open them again the next time you log on. In an Explorer window, click Tools, Folder Options, and the View tab. Under Advanced Settings make sure Restore Previous Folder Windows At Logon is selected and click OK. (Note that this tip only works with Explorer windows and not applications, so any programs still running at log off will not be reopened.)

Instantly Minimize All Open Windows

If your screen is full of open windows and you need to access something on the Desktop, two keyboard shortcuts can make it quick and easy. Hold down the Windows key and press either *D* or *M*, and all open windows will immediately be minimized.

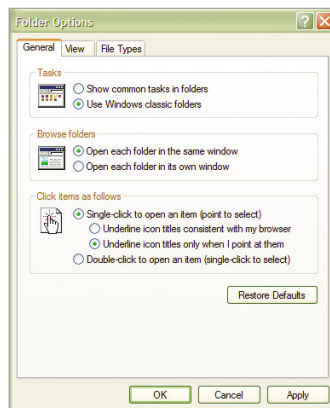
Select All Files With Keyboard Shortcut

You probably know the two most common ways to select all files—by highlighting them all with the mouse or

choosing Select All from the Edit menu. An easy and mouse-free way to do this is to press CTRL-A, which will automatically select every file in the current window.

Open Files & Folders With A Single Click

Ever wish you could open files and folders in Explorer with a single click—as with Web pages—instead of a double-click? You can: Go to Tools and Folder Options and, on the General tab, find the area labeled Click Items As Follows. Select Single-click To Open An Item (Point To Select) and choose one of the underlining options; the former will cause all files and folders to be underlined all the time, while the latter will underline individual items only when you move the mouse cursor over them.



By choosing Tools and Folder Options from any Windows Explorer window, you can choose to open a file with a single, rather than a double-click, and reclaim space by eliminating the tasks and shortcuts on the left side of the window.

Customize The File Details Display

The Views button in an Explorer window's toolbar is a handy feature since it lets you switch how a folder's contents are displayed. The Details view displays a limited amount of information depending on the folder contents—for regular files it shows each file's size, type, and the date/time it was last modified. You can choose which file details you want to appear. Just click View and then Choose Details, and you'll see a list of dozens of items to choose from. (Some of the items are specific to multimedia files and may not be applicable depending on what's in the folder.) Put a check next to the detail information you want to appear, clear the check mark next to any item you don't care about. Click OK, and the new details will appear. (You may have to expand the window to see them.)

Show The Full Folder Path In A Title Bar

When you open an Explorer window for a folder within a folder (called a subfolder), the window's title bar

displays only the lone folder name, such as My Music. You can make it easier to see the exact location that files are stored on your hard drive by configuring Explorer to display the full path to folders instead. Just click Tools, Folder Options, and the View tab. Then under Advanced Settings, look for Files And Folders and check Display The Full Path In The Title Bar.

Quick Access To The Documents & Settings Folder

Under normal circumstances, getting to your WinXP account's Documents And Settings folder, (which you may find necessary if you want to copy your Start Menu items or Internet Explorer Favorites) requires a bit of digging through My Computer windows. For a shortcut, click Start and Run, type a period (.), and click OK. This will open the Documents And Settings folder for your account.

Customize Send To Options

WinXP's right-click context Send To menu provides an easy way to send a file to the My Documents folder, a particular storage device, or even to someone via email. Send To offers a number of default locations to choose from, but you can also add your own.

Start by opening the Documents And Settings folder for your account (use the tip above) and double-click the SendTo folder to open it. If you don't see the SendTo folder, you'll need to choose to display hidden files and folders—click View, Folder Options, and the View tab. Locate the Show Hidden Files And Folders option under Advanced Settings, select it, and click OK.

Now right-click somewhere in the empty space of the SendTo folder, choose New, and then choose Shortcut. Complete the Create Shortcut wizard to point to a new location, and when you're done, it will appear as a destination in your Send To menu.

Change The Default Launch Application For A File

When you double-click a data file such as a word processing document, photo, or music file, WinXP opens it using the default application for that file type (for example, the Windows Picture And Fax Viewer for JPEG [Joint Photographic Experts Group] files). Default applications can sometimes change

without your knowledge, especially when you install new software. If you ever want to open a file using a program other than the default choice, right-click it and select Open With, and you'll be presented with a menu of alternate programs that can be used with the file.

Choosing a new program via the Open With menu doesn't change a file's default application when you double-click it, however. If you want to do that, use the Open With menu, but select the Choose Program option. Highlight the program you want from the

Recommended Programs list and then check the Always Use The Selected Program To Open This Kind Of File box and click OK. From now on, all files of that type will automatically open using the new program.

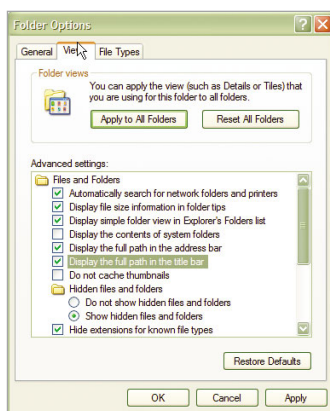
Hide Or Resize Windows Task Manager

Task Manager, which you can summon by pressing CTRL-ALT-DELETE while logged in to WinXP, provides a handy way to monitor what programs are running and how much of your system's processor and memory are being used. But Task Manager's default behavior isn't ideal because it blocks the view of

other windows, and minimizing it takes up valuable real estate on your Taskbar.

With a couple of quick changes to the Options menu, you can make Task Manager less obtrusive. Namely, click Options and make sure Hide When Minimized is selected and that Always On Top is not selected. Now, Task Manager won't block access to your other windows and when minimized it won't be on the Taskbar, even though it will still be easily accessible from the tray, which will display a mini CPU meter.

Task Manager also doesn't normally give you a lot of flexibility to resize its window: You can make it longer or wider, but not any smaller than its standard size. That is, unless you double-click the empty area to the right of the tabs, which will remove the tabs, menu, and pretty much everything except the application or process list (or the performance graphs, depending on the tab you've selected). In this slimmed-down mode, you can resize the Task Manager to make it as small as you want. To return to Task Manager's normal view, just double-click anywhere in the gray area at the edges of the window. ■



From the View tab, you can configure every Explorer title bar to display the full path of the selected file or folder.

BY JOSEPH MORAN

Create & Manage Folders In WinXP

You can save time by organizing and customizing your folders so you have a system for filing documents that you understand. We'll review the basics of creating, organizing, and managing your folders in Windows XP.

Create A Folder

It is simple to create a new folder in WinXP. As an example, let's say that you want to create a new folder in My Documents to hold your genealogy files. First, navigate to the My Documents folder by clicking the Start menu and My Documents. Then click the File menu, point to New, and click Folder. Type a name for the new folder. In our example, we'll type **Genealogy Files**. Press ENTER after you type the name of the folder.

Rename A Folder

If you want to rename a folder, right-click the folder's name and click Rename. Then type a new name for the folder and press ENTER.

There is another easy way to rename a folder. Make sure the folder you want to rename is selected and then press F2. Type a new name for the folder and press ENTER.

Navigate Folders

WinXP has a variety of ways that it can display a folder or files. It automatically uses certain views for certain types of folders and files. For instance, by default, Windows uses the Tiles view for the files in the My Music folder and its subfolders. This view includes an icon with the file name and basic file information placed to the right of the icon. In Tiles view, you can read more characters in a long file name, as well as additional information about the file. With music files, this means that you'll be able to read the full title for many songs, as well as some other information about the audio track, such as the artist. In contrast, WinXP displays the files in the My Pictures folder and its subfolders in Filmstrip view, which displays a large view of the selected image, with a series of thumbnails underneath.

Change folder views. Although WinXP sets these views by default, you can change the way that Windows displays folders or files. To change the way that a single folder appears, locate and click the Views button on the toolbar. The Views button's icon is a small window containing tiny icons. When you click the Views button, a drop-down menu will appear with five or six view options (Thumbnails, Tiles, Icons, List, and Details, as well as Filmstrip if you are viewing a folder with image files). Click to select the view you'd like to use. This will change the view for only the folder or files you're currently viewing.

You can also change the view for all folders rather than just one folder. To do this, click Start and My Documents. Click the Views button and choose the view style you would like to apply. Then click the Tools menu, Folder Options, and the View tab. Under Folder Views, click the Apply To All Folders button. Click Yes and OK.

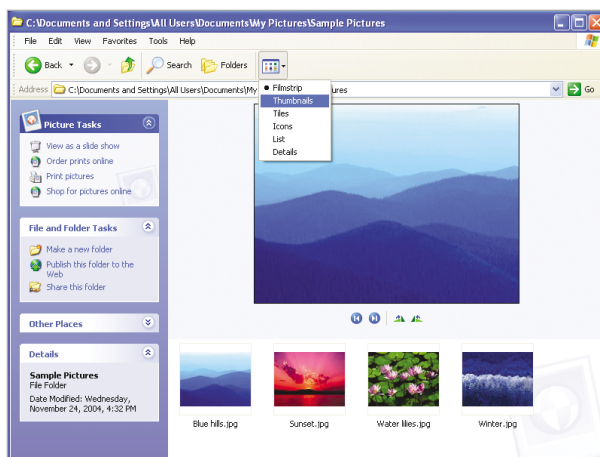
Search folders. To search for a folder, click Start and Search. In the resulting window, click All Files And Folders. You may choose one of the radio buttons under When Was It Modified (click the double arrow next to When Was It Modified to reveal the selections) to restrict your search results to folders that were modified during a specific time period. Type all or part of the name of the folder you want to find and click the Search button.

Move a folder. You can easily move a folder to a new

location. First navigate to the folder you want to move. Then right-click the Start menu and click Explore. Navigate to the desired location for the folder you want to move. Then simply drag the folder from its original location to its new location.

A Future For Your Folders

Now that you know how to create and manage your folders, you can organize and view your files any way you like. With a better system, you'll spend less time looking for files and more time using your computer. ■



You can click the Views button on the toolbar to change the default view for the current folder.

Use Your PC As A DVR In Vista

It's Simpler Than You Think

While setting up your PC as a DVR may sound like an expensive and complicated endeavor, it's actually fairly simple. All you need is a PC with Windows Vista and Windows Media Center (WMC comes with Vista Home Premium and Vista Ultimate), a TV signal, and a TV tuner. Chances are you already have the first two, so it's entirely possible that the only additional equipment you need to buy is the TV tuner.

TV Sources

You will need a TV signal if you want to watch or record TV on your PC. The same pros and cons of using an antenna versus cable apply here just as they do with any TV. An antenna gives you a free signal that has limited clarity and few channels; satellite and cable have limited availability in some areas, and you'll have to pay a fee for them, but they offer a superior picture as well as a far greater number of channels.

A tuner card will have ports for an antenna feed, cable box, or satellite dish, just like the back of your TV. Many tuner cards will include additional audio and video ports so you can plug other devices, such as a DVD player, into your PC, as well.

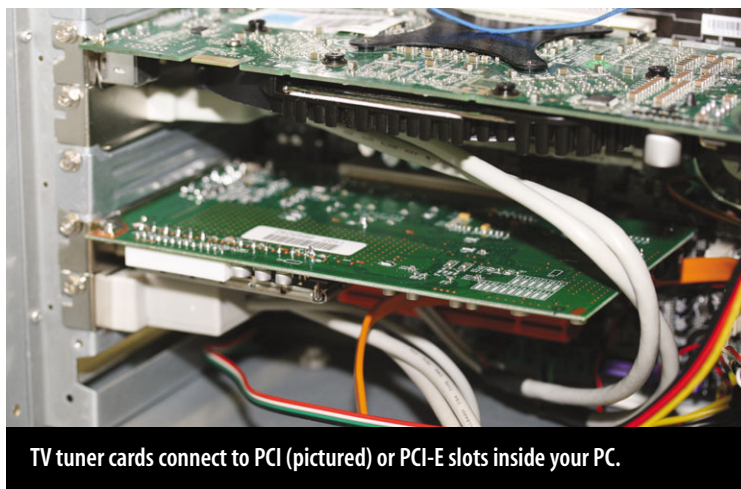
Purchasing A TV Tuner

TV tuners come in two form factors: PCI (Peripheral Component Interconnect) or PCI-E (PCI Express) cards that must be installed inside the computer and external USB or FireWire tuners.

External tuners are designed for portability and are terrific for watching TV on your laptop on the go. They are easier to install than tuner cards—all you have to do is plug them into the correct port and install the software—although they tend to be more expensive than tuner cards.

For a desktop PC, a TV tuner card is the way to go. You get more for the price, and having them tucked safely inside your computer is much more secure and convenient in the long run than having a device sticking out from the back of your PC.

Lastly, be sure that your computer meets at least the minimum requirements for the tuner you want to buy. You can find this information on the tuner's packaging.



TV tuner cards connect to PCI (pictured) or PCI-E slots inside your PC.

Install A TV Tuner Card

To install a tuner card, shut down the computer and unplug it. Be sure to touch the metal part of the case to discharge any static electricity before you touch anything in the computer's guts. Open the case; you can usually accomplish this by removing just a few screws. Locate a free PCI or PCI-E slot (depending on which your tuner card requires) and remove the slot cover. Snap the TV tuner card into place by pressing gently but firmly. Close the case.

Plug your TV source and any other necessary cables (such as an IR [infrared] remote control cable or audio/visual cables to connect a DVD player) into the tuner card and install any necessary software.

Configure Your TV Signal In Windows Media Center

Once you've completed the above steps, you'll need to set up your TV source with WMC.

Be sure you are connected to the Internet. Open WMC from its Desktop icon or by clicking Start, All Programs, and then Windows Media Center. When WMC opens, you will be greeted with the Start screen. Scroll down to Tasks and then over to Settings. Click Settings and then TV. Click Set Up TV Signal; select Yes when asked whether you would like to continue.

You will now begin configuring your TV signal for WMC; make sure your source is connected to the tuner card and click Next. The default region is the United States; make sure the Yes, Use This Region To Configure TV Services radio button is selected and click Next. On the

next screen, WMC will automatically download the possible TV signal setup options for the region you selected. You can either have WMC configure your signal automatically or do it manually; select the appropriate radio button for what you're comfortable doing and click Next.

If you choose to manually configure your TV signal, the next screen will ask you if it is Cable, Satellite, or Antenna. Check the appropriate radio button and click Next. If you select Antenna, the next screen will tell you that setup of your signal is complete. If you select Cable or Satellite, you need to be sure the involved devices (such as a set-top box) are on; follow the instructions on-screen and make any necessary adjustments to your cable or satellite hardware.

Whichever option you choose, you will still need to set up WMC's TV guide. To do so, select the Set Up Guide Listings radio button and click Next and Next again on the following screen. Check the Yes radio button and click Next. (If you want to review WMC's Guide privacy statement first, click the link above the Yes button.) After reviewing the Guide Terms Of Service, select the I Agree radio button and click Next. Enter your ZIP code and click Next, and WMC will automatically download your local listings. Click Next when the download is complete and then click Finish.

To watch TV on your PC, click the green WMC button at the top of the window. Scroll up to TV + Movies and then over to Live TV, where you can flip through channels with aplomb.

Watch & Record TV

Watching TV on your PC is now simply a matter of changing channels. To use the Guide to find programs to watch and record, click the green WMC button at the top of the window. Click TV + Movies, scroll over to Guide, and select a program to watch it.



The Hauppauge WinTV-HVR 950 USB (\$119; www.hauppauge.com), which includes a portable digital antenna, is an example of a USB TV tuner.



The Hauppauge WinTV-PVR 350 TV tuner card (\$149; www.hauppauge.com) can be installed in any free PCI slot.

To record live TV, all you have to do is click the red Record button at the bottom of the screen when you're watching a program. Once done, you can play, pause, rewind, or fast-forward that particular show.

The size of your hard drive determines how many shows you can record and store on your computer. Depending on quality, a 30-minute broadcast will gobble up about 1.5GB of space, so be aware that if you want to keep a lot of recorded programs on your computer, you'll need a fairly large hard drive.

If you want to record a program ahead of time, open the Guide, locate the desired show, and select Record. To record the entire series of the show, click Record Series. When you want to watch your recorded programs, click TV + Movies from the WMC Start screen and then Recorded TV and scroll through your list.

Your PC is now a DVR, and you can record as many programs as your hard drive can hold. With a DVD burner onboard, you can burn all those shows to discs and save them in perpetuity. Your friends will be thrilled when you invite them over for a marathon showing of the final season of M*A*S*H that you spent weeks collecting on your DVR. ■

BY SETH COLANER

Pricing TV Tuner Cards

PCI (Peripheral Component Interconnect) or PCI-E (PCI Express) tuner cards range in price from about \$75 to \$200. Of course there are varying levels of quality proportional to the price, but for the most part, cards in all price ranges will deliver good image quality. Mainly, the difference in price pertains more to what features are packed into each card. For example, a lower-priced tuner card may have just a coax jack and some tuner software, whereas a higher-end card will include more connection options, cabling, and a remote control.

External USB and FireWire tuners are a bit pricier than tuner cards, in the \$100 to \$300 range. Essentially you are paying for the convenience of not having to open up your computer and install a card in addition to the obvious benefit of portability. ■

Look At The Big Picture

How To Buy A Digital Photo Frame

Chances are you've discarded (or at least carefully retired) your old film camera and replaced it with a digital camera. But if most of your digital photos reside in a folder on your PC, with only a precious few seeing the light of day as your Desktop wallpaper or in an email to friends and family, then you're still treating those multimegapixel memories like their shoebox-entombed predecessors. Free your photos with a digital photo frame and give more of your unforgettable moments a chance to shine.

Current digital photo frames may look like backlit versions of the dust-collecting wood-and-glass frames you know and love, but the similarities stop there. Beneath the surface, digital frames are loaded with features that let you display hundreds of photos in a variety of ways and easily swap photos between your camera and PC. They can even make your photos look better than ever. Read on for some tips on what to look for when shopping for a digital photo frame.



Kodak's EasyShare digital photo frames are also capable of playing music and video.



determine which gizmo we take home. Generally, you can find 3-inch (measured diagonally on the LCD) digital photo frames that are small enough to fit in your pocket, 15-inch frames that are clearly visible from any place in the room, and frames any size in between. The most expensive part of a digital photo frame is the LCD panel, so you'll usually see higher price tags attached to larger frames. Expect to pay between \$75 and \$150 for frames 8 inches and smaller and up to \$350 or more for larger frames. Other pricey features include wireless capabilities, photo-sharing services, swappable face plates, and integrated memory.

make sure the frame you ultimately choose supports a file format you use. If necessary, you can also use a third-party software utility to convert your audio and video files into the appropriate file types. A few of the more commonly used video file formats are WMV (Windows Media Video), AVI (Audio Video Interleaved), and MPEG (Moving Picture Experts Group). Audio formats you might encounter include MP3 and WMA (Windows Media Audio). For example, the 8-inch Kodak EasyShare EX811 (\$199.95; www.kodak.com) has a built-in speaker and fast **refresh rate** (amount of time it takes an image to be redrawn and the pixels to change from dark to light) to play clear audio and vivid video recorded in MP3, MOV, AVI, MPEG-1, and MPEG-4 formats.

Photographic Experts Group) images, the compressed image format most digital cameras use, which offer millions of colors at reasonably compact file sizes. If using graphics from the Web or professional image-editing software is a priority, then look for a digital photo frame that supports additional file formats, such as TIFF (Tagged Image File Format), BMP (bitmap), GIF (Graphics Interchange Format), and PNG (Portable Network Graphics).

A/V formats. Many digital photo



frames are also capable of playing audio and video. If this is a feature you're interested in,

make sure the frame you ultimately choose supports a file format you use. If necessary, you can also use a third-party software utility to convert your audio and video files into the appropriate file types. A few of the more commonly used video file formats are WMV (Windows Media Video), AVI (Audio Video Interleaved), and MPEG (Moving Picture Experts Group). Audio formats you might encounter include MP3 and WMA (Windows Media Audio). For example, the 8-inch Kodak EasyShare EX811 (\$199.95; www.kodak.com) has a built-in speaker and fast **refresh rate** (amount of time it takes an image to be redrawn and the pixels to change from dark to light) to play clear audio and vivid video recorded in MP3, MOV, AVI, MPEG-1, and MPEG-4 formats.

Memory formats. A host of proprietary memory standards has rather complicated the compatibility picture between digital photo frames and digital cameras. The best way to ensure you get a digital photo frame that won't be a headache to load with images is to make sure it natively supports your digital camera's memory card format. Luckily, most digital photo frames support multiple memory standards, the most common of which are CF (Compact Flash), SD

Focus Your Budget

Any "How To Buy" article you read (and this one is no exception) tells you all the specs you need to know to help you shop smart. But for most of us, price and size are the two aspects that ultimately will

Get All The Right Abbreviations

When browsing the spec sheets, determine the supported file formats and accepted memory types to make sure you find a digital photo frame that works with your current equipment.

Image formats. Practically all digital photo frames display JPEG (Joint

(Secure Digital), MS (Memory Stick), and MMC (MultiMedia Card). Some digital photo frames also let you load photos with a USB flash drive.

Other methods of loading photos to frames include via USB cable from your PC or using some form of wireless technology. The Parrot Photo Viewer 3.5" (\$149.99; www.parrot.com), for instance, lets you wirelessly send photos to the frame using a Bluetooth-capable smartphone or PC. Some digital photo frames also let you load photos via rather unconventional methods. The 7- and 8-inch Digital Photo Frames from Ceiva (\$174.99 and \$224.99, respectively; www.ceiva.com) let you and others you invite send photos to the frame via a phone line connection to Ceiva's PicturePlan service. PicturePlan subscription rates are \$99.95 for one year and \$249.95 for three years.

Many digital frames also come with built-in memory, which lets you transfer images from your camera's memory card or upload images from your PC without having to buy a dedicated memory card for the frame. The number of images that will fit on a

given memory card depends on the image quality and resolution. The Polaroid 7-inch XSA-007700S (\$99.99; www.polaroid.com), for example, has 32MB of storage and will hold roughly eight uncompressed 8MP (megapixel) images. If you've settled on a frame that doesn't include dedicated memory, then make sure to add the cost of a memory card to your budget.

The Resolution Riddle

You might think that bigger digital photo frames are better, but this is only part of the story. Size does matter, but resolution matters more. A digital photo frame with a high resolution, described as the number of vertical pixels by the number of horizontal pixels, will display clear and detailed images. Westinghouse Digital's 14-inch DPF-1411



The tiny Parrot Photo Viewer 3.5" is perfect for desk viewing.



Ceiva's PicturePlan photo delivery service lets you send photos to your digital frame via the Web.

(\$349.99; www.westinghousedigital.com) features an impressive 1,280 x 800 resolution, which results in sharp and vivid playback of images and videos. To understand how resolution affects the appearance of the image, go to a local electronics retailer and bring along a memory card loaded with your own photos to test some frames. Smaller frames generally support lower resolutions, but when choosing among similarly sized frames, select the one with the highest resolution to get the best results. Also, keep in mind that many digital photo frames will resize, crop, or stretch your images slightly to match the display's native resolution.

Buy The Numbers

There are a handful of other specs you might see when shopping that have

Manufacturer	Contact	Model	Price	Size	Resolution	Brightness	Contrast Ratio	
Ceiva	(818) 562-1495 www.ceiva.com	7-inch Digital Photo Frame	\$174.99	7-inch	480 x 234	200cd/m2	400:1	
		8-inch Digital Photo Frame	\$224.99	8-inch	640 x 480	260cd/m2	500:1	
Kodak	(800) 235-6325 www.kodak.com	EasyShare SV1011	\$199.95	10-inch	800 x 480	300cd/m2	300:1	
		EasyShare EX811	\$199.95	8-inch	800 x 480	300cd/m2	300:1	
Parrot	(877) 972-7768 www.parrot.com	Photo Viewer 3.5"	\$149.99	3.5-inch	320 x 234	N/A	N/A	
		Photo Viewer 7"	\$239.99	7-inch	720 x 480	N/A	N/A	
Philips	(888) 744-5477 www.usa.philips.com	Modern Line 9FF2M4	\$249.99	9-inch	680 x 480 viewable	300cd/m2	N/A	
		Wood Line 7FF1CWO	\$199.99	7-inch	720 x 480 viewable	200cd/m2	N/A	
Polaroid	(800) 343-5000 www.polaroid.com	CPA-00711S	\$99.99	7-inch	480 x 234	350cd/m2	300:1	
		XSA-00770S	\$99.99	7-inch	480 x 234	250cd/m2	250:1	
		IDF-1030	\$169.99	10.4-inch	640 x 480	350cd/m2	300:1	
Westinghouse Digital	(866) 287-5555 www.westinghousedigital.com	DPF-0802	\$169.99	8-inch	800 x 600	250cd/m2	500:1	
		DPF-1411	\$349.99	14-inch	1,280 x 800	200cd/m2	400:1	

a measurable impact on how your pictures look on a digital frame. **Contrast ratio**, or the digital photo frame's ability to display dark and light pixels, can make a big difference in image quality. Low contrast ratios can result in images that look washed out. If you plan to put the frame in an area with a lot of ambient light, choose a frame with a contrast ratio of 300:1 or better. Westinghouse Digital's 8-inch DPF-0802 (\$169.99) features a 500:1 contrast ratio, for example.

Another spec that you'll want to keep in mind is **viewing angle**, which refers to how well the frame retains its color and brightness when viewed indirectly. Most of the digital photo frames we mention here don't provide a viewing angle rating, but you can check for yourself. To determine how wide a given frame's viewing angle is (the wider the viewing angle, the better it will look) start by viewing the frame from the side and slowly rotate it until



The Polaroid XSA-00770S provides extra functionality with its wireless weather sensor.

you are facing it head on. Next, view the frame from the bottom or top and rotate it until looking head-on. Frames with the best viewing angles will retain their colors and brightness even when viewed at between 160- and 170-degree angles. This is less important for digital photo frames you

plan to view from a fixed position, such as on a desk, but wall-mounted frames will benefit from the best viewing angles.

Digital Perks

Probably the most popular feature of digital photo frames is their ability to let you view multiple photos in a slideshow format. Polaroid's IDF and CPA digital photo frames include a zoom function, effectively letting you recompose the image and change the focal point on the fly.

Westinghouse Digital's frames feature its patented MosaicView technology, which displays up to four photos at once. The Philips 9-inch 9FF2M4 (\$249.99; www.usa.philips.com) has a built-in rechargeable battery capable of displaying images for up to an hour. Many digital photo frames also let you apply transitions to slideshows, tweak display durations, edit the photos, add effects, and rotate the images to match the orientation of the frame.

Not Your Father's Frame

Digital cameras are great because they let us eliminate the photo-processing middleman, but digital photo frames go a step further, letting us cut the printer from the picture, as well. Now you can start putting all that printer cartridge money you've saved up toward larger memory cards. ■

BY ANDREW LEIBMAN



The Philips 9FF2M4 includes four swappable magnetic frames to match your décor.

Storage	Formats	Connectivity	Other Features
256MB internal; CF, MS, MS PRO, MS Duo, MS PRO Duo, SD, SM, MMC, MD, xD	JPEG	Optional Ceiva broadband or wireless adapter	Ceiva PicturePlan
256MB internal; CF, MS, MS PRO, MS Duo, MS PRO Duo, SD, SM, MMC, MD, xD	JPEG	Optional Ceiva broadband or wireless adapter	Ceiva PicturePlan, swappable frames
128MB internal; SD, MMC, MS, xD, CF, MD	JPEG, EXIF, MOV, AVI, MPEG-1, MPEG-4, MP3	USB	Audio- and video-capable, remote control
128MB internal; SD, MMC, MS, xD, CF, MD	JPEG, EXIF, MOV, AVI, MPEG-1, MPEG-4, MP3	802.11b/g, USB	Wi-Fi, audio- and video-capable, remote control
32MB internal	JPEG	Bluetooth	Send photos wirelessly via phone, camera, or PC
128MB internal	JPEG	Bluetooth	Send photos wirelessly via phone, camera, or PC
20MB internal; CF, MS, MS PRO, MMC, SD, xD	JPEG	USB	Swappable frames, built-in battery
8MB internal; CF, MS, MS PRO, MMC, SD	JPEG	USB	Built-in battery
SD, CF, MMC, MS, USB flash drive	JPEG	USB	Zoom, remote control, swappable frames
32MB internal; SD, MMC, MS, MS PRO Duo, USB flash drive	JPEG	Wireless weather sensor, USB	Weather station, remote control
CF, SD, MMC, MD, SM, MS	JPEG, MP3	N/A	Zoom, remote control, swappable frames, audio-capable
128MB internal; CF, MD, MS, MS PRO, MS Duo, MS PRO Duo, SD, MMC, xD, USB flash drive	JPEG, AVI Motion-JPEG, MPEG 1, MPEG 4	USB	Video-capable, MosaicView
128MB internal; CF, MD, MS, MS PRO MS Duo, MS PRO Duo, SD, MMC, xD, USB flash drive	JPEG, AVI Motion-JPEG, MPEG-1, MPEG-4	USB	Video-capable, MosaicView

Write This Down

Control Your Computer With A Pen

For a few years now, Tablet PC users have enjoyed the conveniences of using a pen to hand-write notes on their computer, draw, sign emails, and navigate their PCs. Although you may assume these handy features are reserved for people with a Tablet PC, that's not true. You can have the same functionality on your desktop PC by connecting a pen tablet. In fact, if your computer runs on Windows Vista Home Premium, Vista Business, or Vista Ultimate, you'll have even greater support for tablet features than ever before.

Graphic designers, artists, and illustrators were the primary users of pen tablets in the past. Although many

people still use tablets for artistic purposes, you'll also find students, office workers, home users, landscape architects, teachers, scrapbookers, and many other people using pen tablets in a variety of ways.

Many Uses

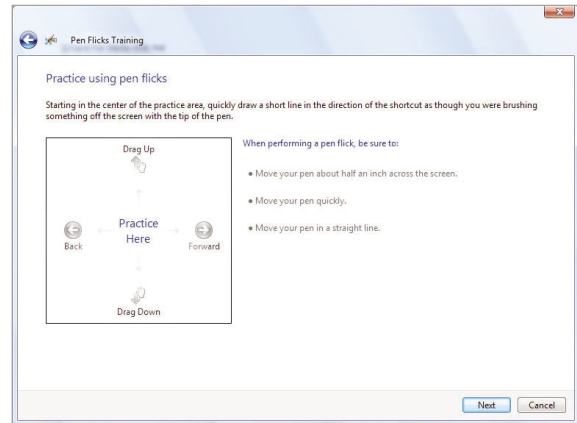
All versions of Vista, except Vista Home Basic, work directly with your pen tablet to give you the ability to convert your handwriting into typed text,

sign emails, add edit marks to a document, and more.

Vista has built-in handwriting recognition that works with a variety of handwriting styles. You shouldn't have to train the recognition engine in order to use it. For better accuracy, however, you can enter samples of your own handwriting or samples of particular letters to train the engine to recognize your style. Vista captures your pen input and recognizes it immediately to give you instantly searchable text.

In addition, Vista lets you use the Tablet PC Input Panel to use handwritten text in place of any text you would normally type using a keyboard. This panel runs automatically, though you won't see it all the time because it minimizes itself

on the left or right side of your Desktop. When the Tablet PC Input Panel is running, you'll see an edge of the panel on a side of your screen; just tap on the edge of the panel with your pen to bring the full panel into view. The Tablet PC Input Panel will automatically convert any written text into printed text. You can cus-

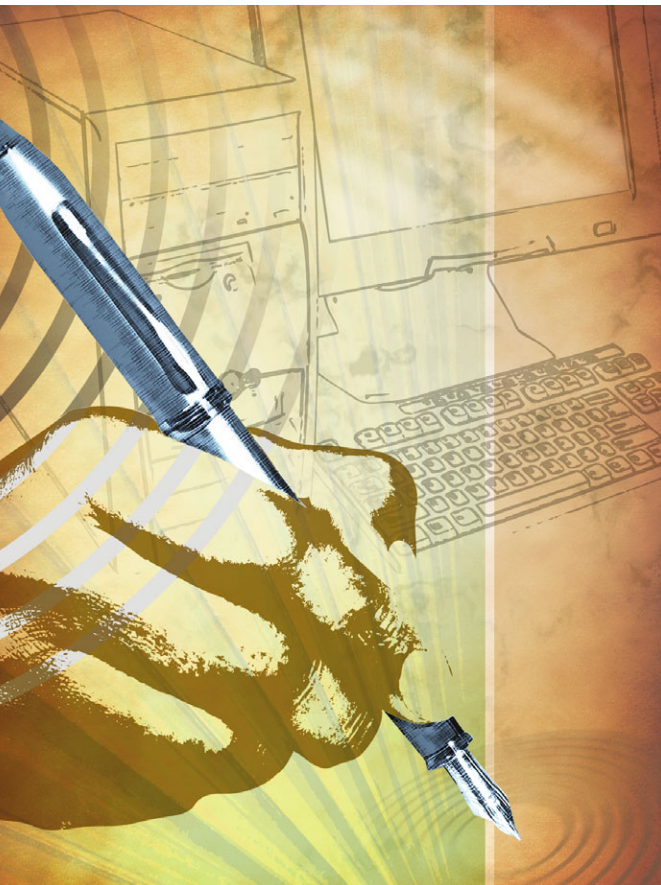


Windows Vista provides a tutorial to help you practice using some of the integrated pen features, such as pen flicks.

tomize many options for the Tablet PC Input Panel by clicking Tools and selecting Options from the panel's toolbar.

Another feature that is especially handy for students and anyone who takes notes regularly is Windows Journal. With this software application, you can jot notes, capture sketches, and even search your handwritten notes. In Journal, you'll find a choice of pens, markers, and highlighters, along with a lasso tool for selecting text or images, a flag tool, and an eraser. Journal can also convert selected handwriting into text.

If you have Microsoft Office 2007, you can use your pen tablet to comment on existing documents, much as a teacher might do with his red pen on a student's essay. Word, PowerPoint, and Excel incorporate a Review tab with a Start Inking button that brings up an Ink Tools menu. This menu includes a felt-tip pen, ballpoint pen, highlighter, and eraser. It also lets you



Pen Flicks

One unique feature of Windows Vista is called pen flicks. Flicks are pen gestures that let you use a pen to navigate the computer and perform shortcuts. As you might expect, pen flicks are quick, linear movements made with the pen. Windows identifies different flicks based on the direction of movement. Up to eight pen flicks can be enabled.

Pen flicks are divided into two primary categories: navigational pen flicks and editing pen flicks. Default navigational pen flicks include options such as drag up, drag down, move back, and move forward. Editing pen flicks let you easily access common functions such as delete, copy, undo, and paste. For example, using the drag-down pen flick, you can easily scroll to the lower portion of a Web page. Similarly, by flicking the pen in the direction associated with the copy flick, you can copy selected items to your Clipboard without using your keyboard or mouse. You can customize any of the pen flicks to fit your needs and preferences. To customize the flicks, navigate to the Windows Vista Control Panel, select Pen And Input Devices, and then choose the Flicks tab. From this tab, choose whether you want to use Navigational Flicks or Navigational Flicks And Editing Flicks. Finally, click the Customize button to tailor the options to your preferences. ■

choose the color of ink and the thickness of a line.

For users who are unfamiliar with how to use a pen tablet, Vista offers an interactive training application that shows you how to perform mouse clicks, use the pen instead of a mouse for input and navigation, and more.

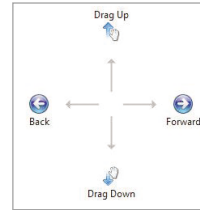
A Pen For Everyone

Pen tablets range in size, purpose, and price. Tablets are frequently described in terms of their writing area. The writing area is different from the

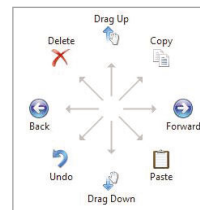
overall size of the tablet. For example, a 9- x 12-inch tablet may require additional space on your desk beyond the 9- x 12-inch footprint of the writing area. If your desk is small, you may want to look for a tablet with a smaller footprint, and thus, a smaller writing area. Tablets can serve a variety of purposes; some models are more tailored to a certain group of users based on the software that accompanies the tablet, writing area, specialized shortcut keys, or other features. A mouse accompanies some tablets but not all tablets.

Home and business users alike can benefit from using the Wacom Bamboo Fun Medium (\$199; www.wacom.com). Wacom suggests using this pen tablet for hobbies such as scrapbooking, digital photo editing, Web design, and more. The company also proposes many business uses for the pen tablet, such as editing documents, signing contracts, annotating notes during a meeting, and more. The pen that accompanies the Bamboo Fun is pressure-sensitive, so you can vary your pen stroke from a fine line to a bold brush mark. This tablet also comes with a mouse that works on the Bamboo Fun pad.

With its large work area, the Genius PenSketch 9x12 (\$249; www.geniusnetusa.com) targets graphic designers and artists. This tablet has 15 predefined Hot-Cells, or shortcut areas, on the top of the tablet, along with five customizable Hot-Cells. The pen that accompanies the PenSketch 9x12 has two buttons that can be programmed to act as left and right mouse buttons. Like the Bamboo Fun, this tablet has a pressure-sensitive pen and comes with a mouse that works on the tablet's surface.



Navigational pen flicks use the cardinal directions (north, south, east, and west) for navigation.



Editing pen flicks add functionality by using the ordinal (northwest, northeast, southwest, and southeast) directions.

For users who are often on the go, the Adesso 8.5 X 11 CyberPad A4 (\$229; www.adesso.us) gives the power of a pen tablet without needing to be constantly connected to a computer. The CyberPad A4 stores a reproduction of everything you write or draw with ink on ordinary paper in its 32MB of internal memory. For additional storage, you can add an SD (Secure Digital) card. You can then upload these replications to your computer. When connected to a computer, the CyberPad converts to a pen tablet and can be used similarly to other tablets mentioned previously. This tablet also comes with Adobe Photoshop Elements 5.0 to give you extra photo-editing capabilities.

Another model, the Wacom Bamboo pen tablet (\$79), proves that you don't have to spend a lot of money to use a pen tablet. This small pen tablet provides the same hardware features as the aforementioned Bamboo Fun, but without the pressure-sensitive pen eraser and mouse.

The Write Way

Pen tablets provide an excellent way to add a personal touch to an email, edited document, or even a digital photo. Regardless of your uses for a pen tablet, it's important to keep in mind that pen tablets don't follow a one-size-fits-all approach. Depending on their size, functionality, accompanying software, and other features, one tablet may be more specialized for your needs than another. With a little shopping and research, you're sure to find a model that will work for you. ■

BY JENNIFER JOHNSON

Many of our readers come across fast, easy ways to solve a problem or accomplish a task. Well, we'd like to hear about it! If you have a great tip you'd like to share, please email us at readertips@smartcomputing.com. If we print your tip, we'll send you a free *Smart Computing* T-shirt. You'll be the envy of all (well, some) of your friends.

Please include your first name, last name, and address so that we can give you credit if we print your tip. (And so that we can send your T-shirt to you, of course.) Please limit your tip to 200 words or fewer. Not all tips received will be printed, and tips may be edited for length and clarity.

Tips To Help You Speed Up, Be More Efficient

Plan Ahead With Google Earth

I like to use Google Earth (earth.google.com) and PowerPoint to help me do my shopping in the Big City. I utilize the Find Businesses tab in Google Earth to locate all occurrences of the various stores where I wish to shop. I deselect occurrences outside of my reasonable shopping sphere, and then I zoom to fit the business alpha-placeholders, ensuring the sidebar and related information are clearly displayed.

Next, I press the PRINT SCREEN button on my keyboard and paste the image into a PowerPoint landscaped slide where I can crop, annotate, or resize. I print the PowerPoint slide, which results in a handy reference showing the stores I want to visit along with addresses, phone numbers, and Web sites neatly displayed in the Google Earth sidebar. This is a wonderful assist to planning an efficient shopping route.

Daniel N., Hereford, Ariz.



three PCs at home that are networked. We ordered the highest speed available: 6Mbps (megabits per second). After installation with the help of tech support from my ISP (Internet service provider), we ran speed tests at www.speedtest.net on all the PCs. One of the computers was only getting 1.5Mbps download speeds, and the other two were fine.

Our ISP sent a tech to my house to check it out. Everything seemed fine with the equipment. The tech said my PC might be infected with a virus or spyware. I did not believe that to be the case because I am religious about maintaining my firewall, antivirus, and antispyware utilities.

I remembered that I installed software years ago called SwiftNet3000 that optimizes your connection speed. I had it set for dial-up instead of DSL. I changed the setting to DSL, rebooted my PC, and now I am achieving download speeds of 6Mbps.

Monica L., Coral Springs, Fla.

Cable Fix Resolves Slow Internet Connection

My PC's Internet Explorer had been running slowly for at least a year, and no matter what I tried, nothing worked. I had a TV running on the same cable line, and suddenly one day the picture on certain channels developed shadows. After a lot of process-of-elimination troubleshooting, I called the cable company. The company immediately found an "almost" broken connection in its box attached to the house. After repairs, my PC ran as good as ever. The high-resistance connection obviously hampered the data input rate.

Jim V., Chandler, Ariz.



Rename Pictures For Easy Organization

My computing tip is one that saves time. I call it "renaming a group of pictures." When a group of pictures is downloaded to the computer, the digital camera assigns each picture its own unique name/number. Follow these steps to quickly and easily rename them all with your own descriptive name.

First, highlight all pictures you want to rename by clicking the first picture, holding down the SHIFT key, and then clicking the last picture in the list. Next, right-click the first picture and then select Rename. Finally, rename the picture, being sure to include the proper file extension (such as .JPG), and press the ENTER key.

This will rename all pictures with the same descriptive name you chose and also add a sequential number in parenthesis.

Stuart L., Clermont, Fla.

Forgotten Software Causes Slowdown

I recently took the plunge and finally went from dial-up to DSL (Digital Subscriber Line). We have

It's Moving Time

Migrate Data & Applications To A New PC

Your new PC works great—it runs faster, has a bigger hard drive, and includes a number of features your old computer didn't offer. But the new PC lacks the familiar files, settings, and applications that made your old PC feel like home. Although you can transfer your files using a portable storage device, it can be tedious to manually install all the applications and reconfigure all the settings.

Luckily, Microsoft includes programs with Windows XP (File And Settings Transfer Wizard) and Windows Vista (Windows Easy Transfer) to let you migrate files and settings between computers. Microsoft also offers a Windows Easy Transfer Companion (in beta at press time) to let you transfer applications off of a WinXP computer to a Vista-based PC. In this article, we'll show you how you can move the data, settings, and applications from a WinXP computer to one that runs Vista using Windows Easy Transfer and Windows Easy Transfer Companion.

Your Moving Tools

Because Windows has built-in tools to transfer data between computers, you'll only need to select the hardware for the transfer method you want to use. With Windows Easy Transfer, you can choose to copy your data and settings from the WinXP computer onto a removable media device, such as an external hard drive, USB flash drive, DVD, or CD, and then copy the data onto the Vista PC. Or, you can directly transfer the data between the computers over your home network or through an Easy Transfer Cable, which is a specially designed USB cable that allows the two computers to exchange

Windows Easy Transfer lets you choose from three different methods to move your files and settings to a new computer.

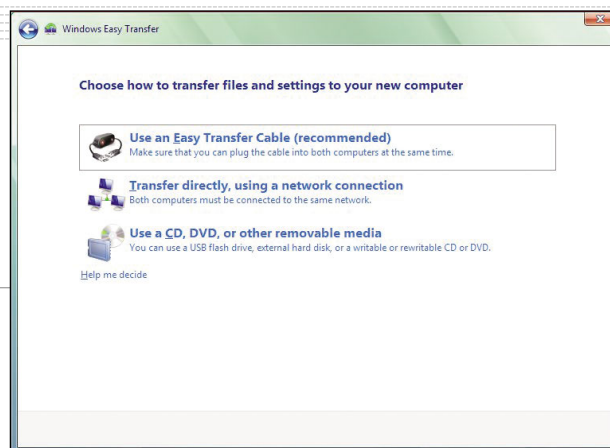
data. The Easy Transfer Companion can only transfer applications via your home network or an Easy Transfer Cable.

When considering what method to use, take into account how much data you'll want to transfer. For instance, if you prefer to use DVDs or CDs and need to transfer 4.9GB of data, you'd have to copy the data onto seven CDs or two single-layer DVDs. Migrating data over a home network or through an Easy Transfer Cable is ideal for large transfers, because you'll only need to make certain your new computer has enough free hard drive space to store the files you want to transfer.

Software Installation

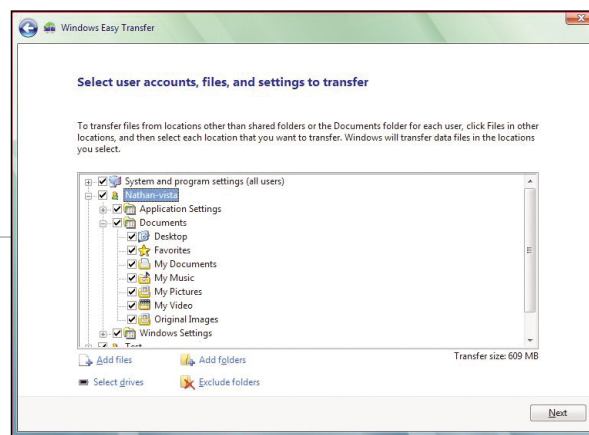
WinXP computers must have Service Pack 2 to run Windows Easy Transfer and the Windows Easy Transfer Companion, so make certain to update your WinXP-based PC before you get started. If your Vista PC came with a Vista installation

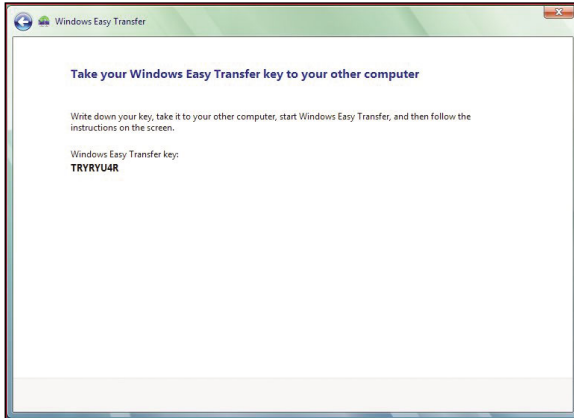
From Advanced Options, Easy Transfer allows you to add or remove specific files and settings from the migration process.



disc and your WinXP computer has a DVD-ROM, you can install Windows Easy Transfer from the Vista DVD. After you insert the Vista DVD, click the Transfer Files And Settings From Another Computer link and follow the instructions to finish the installation. If your Vista PC didn't come with an installation disc, visit the Microsoft Download Center (www.microsoft.com/downloads) to download Windows Easy Transfer. (To download Windows Easy Transfer, type **Easy Transfer** into the search box, click the Easy Transfer link, and follow the steps below to download and install the program.)

The Microsoft Download Center is also where you'll download the Windows Easy Transfer Companion.





On the Microsoft Download Center page, type **Easy Transfer Companion** into the search box, click the Go button, and click the Windows Easy Transfer Companion link in the results. Next, click the Continue button to validate your copy of Windows, select your connection type using the Download Size drop-down menu, click the Download button, and choose Run. Once the application finishes downloading, the Easy Transfer Companion will lead you through the installation process.

Transfer Your Files & Settings

Windows Easy Transfer allows you to transfer the User Accounts; folders and files; program settings (for some programs, not all); Internet settings and Internet Explorer Favorites; and the Outlook, Outlook Express, Windows Mail, and other email programs' settings, contacts, and messages from your WinXP computer. Easy Transfer guides you through the process with a series of

To securely transfer data over your network, you'll be provided a Windows Easy Transfer key, which you must know to access the data on your Windows Vista PC.

questions to help you find and transfer the files you need. At the Easy Transfer Welcome Screen, click Next and then select Start A New Transfer. Select

My Old Computer, because you'll be transferring the files and settings from your WinXP system. From this point on, each transfer method is different; you can refer to the appropriate section in this article that provides instructions for the transfer method of your choice.

Note that all three transfer methods feature a What Do You Want To Transfer To Your New Computer screen. You can select All User Accounts Files And Settings; My User Accounts Files And Settings Only; or Advanced Options. If you want to exclude some files, such as to limit the amount of data stored on the disc or if you've already loaded some files onto the Vista PC, select Advanced Options to pick and choose the files involved in the transfer.

Discs & External Drives

Free storage space can be a concern when you use CDs, DVDs, a USB flash drive, or an external hard drive with Easy Transfer, but you'll have the advantage of having made a backup of your files and settings that you can reinstall in case of an emergency. Before you continue the Easy Transfer process, you'll need to connect the external storage device or

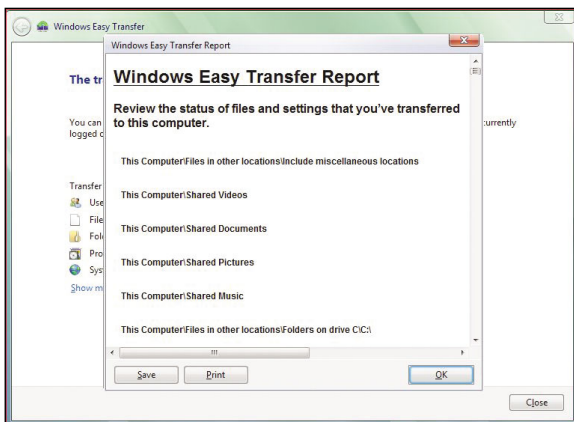
insert the writeable disc in the drive. Select Use A CD, DVD, Or Other Removable Media and click the removable media option you plan to use. Select the appropriate drive letter, such as E: or F:, and in the Create Password field and Confirm Password field, you can add a password to keep others from accessing the copied files and settings from your storage tool. At the What Do You Want To Transfer To Your New Computer screen, select your files of choice.

Easy Transfer will then examine your computer and list the files it will copy on your removable media. If you want to add or remove files, click the Customize button. If you're happy with the selections, click Next to copy the data to your removable media. Once Easy Transfer is finished, remove your discs or the external storage device, move to your Vista-based computer, and insert the removable media. Open Easy Transfer, click Next, and choose Continue A Transfer In Progress. Select No, I've Copied My Files And Settings To A CD, DVD, Or Other Removable Media, choose the type of media, click the Browse button, and then double-click the SaveData.MIG file. Click Next and choose the Transfer button to migrate your files and settings over to your Vista-based computer.

Network

Home networks make it easy to share data between computers, but with Windows Easy Transfer, you can simultaneously transfer both files and settings between PCs. To use your home network with Easy Transfer, open Easy Transfer on your WinXP computer and click the Transfer Directly, Using A Network Connection option. You can choose to copy the files to a shared network folder or migrate the files and settings directly to the Vista-based PC. Placing the files on a network folder is handy if you have multiple computers and wish to import your files and settings to several network PCs.

Select the network location or network PC. Easy Transfer will ask for a



After the transfer finishes, Easy Transfer provides a full report of the files and settings that transferred successfully.

Windows Easy Transfer key, which is a passcode that lets you load the migrated data on the Vista-based computer. Select the No, I Need A Key option, write down the passcode, and enter the key on your WinXP computer. Open Easy Transfer on your Vista-based computer, click Next, select Continue A Transfer In Progress, and choose Yes, I'll Transfer Files And Settings Over A Network. Enter the key and click Next.

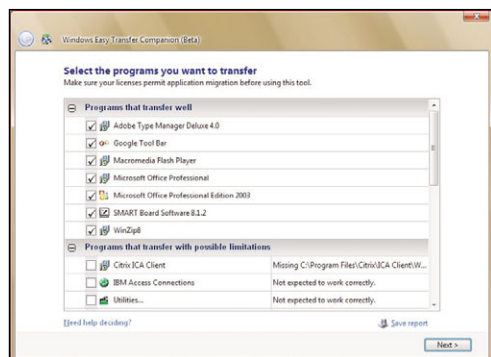
Once Easy Transfer indicates the computers are connected, move to the WinXP machine and select the files you want to transfer. Once you've made your selections, click the Transfer button. Move over to the Vista-based PC, and when the transfer finishes, you can view a report of the files and settings that successfully migrated.

Easy Transfer Cable

When using an Easy Transfer Cable, you'll have to situate your WinXP and Vista computers close enough to connect the PCs. Open Windows Easy Transfer on the WinXP computer and select the Use An Easy Transfer Cable option. At the What Do You Want To Transfer To Your New Computer window, select the option that best applies to the data you want to transfer. Click the Transfer button to begin the process. Once the transfer is finished, check through the report to make certain all of your critical files migrated over.

Windows Easy Transfer Companion

The Easy Transfer Companion is compatible with over 100 applications,



Familiar Territory

Although Windows Vista's Aero interface offers a number of visually enhanced features, you may find it difficult to locate applications and settings when using it. Fortunately, you can change Vista's Desktop appearance and visual schemes to resemble an interface you're comfortable with. To revert to the more menu-driven interface of Windows 2000 and Windows XP, right-click an open area of the Taskbar, select Properties, choose the Start Menu tab, select the Classic Start Menu radio button, and click Apply. To change the Desktop color scheme, right-click an open area of your Desktop, select Personalize, and choose Windows Color And Appearance. Select Open Classic Appearance Properties For More Color Options, and you can choose between Windows Vista Basic (the color scheme of Vista without the visual effects), Windows Standard (the colors found in Win2000/XP), or Windows Classic (for the Windows 98 gray and blue color scheme).

By default, Vista also uses a different mouse pointer than the standard pointer in Win2000/XP. Right-click an open area of your Desktop, choose Personalize, and select Mouse Pointers. To revert to a pointer reminiscent of Win2000 or WinXP, click the Pointers tab, select None from the drop-down menu, and click OK. You may also find it useful to make Vista display folders without previews and filters. To do so, click the Start button, choose Control Panel, and select Appearance And Personalization. Locate the Folder Options subcategory and click the Use Classic Windows Folders link. Click the Use Windows Classic Folders radio button, choose Apply, and click OK. ■

but the application may not be able to transfer all of the programs on your computer, so you may need to manually install a few programs. As of this writing, the Easy Transfer Companion migrates most Web browsers and online tools, such as Firefox, Google Earth, and Skype, as well as many office programs, such as WordPerfect, Quicken, and Microsoft Office. Additionally, the Easy Transfer Companion will scan your PC and indicate which applications will not transfer.

Open the Easy Transfer Companion and click Start. First, you'll need to select the Easy Transfer Cable option or the home network option. Once you choose a transfer method, Easy Transfer Companion scans your WinXP PC and provides you a Companion key. Write this key

down and move over to your Vista PC. Open the Easy Transfer Companion, click Start, select the appropriate connection method, and enter the key. The Easy Transfer Companion will scan your WinXP computer and provide a list of the programs the tool will transfer. If the Easy Transfer Companion can't copy a program, the reason will be listed in the right-hand column. To complete the transfer, click the Next button. When the migration finishes, you can read the Summary Report to see whether your applications transferred successfully.

Easy Transfer and the Easy Transfer Companion provide detailed summary reports, so you can determine if you'll need to manually install applications or copy files to your Vista PC. Although the transfer tools may not migrate every piece of data, using the mass-migration applications can certainly reduce the time it takes to transport your personal data, custom settings, and critical applications to your new PC. ■■

Before you migrate applications through the Windows Easy Transfer Companion, examine the Select The Programs You Want To Transfer window to view a list of the programs that are transferable.

BY NATHAN LAKE

Experiences Of First-Time Mac Users

My friend's parents recently bought their first Mac after years of struggling with a spyware- and adware-infested PC that had slowed to the point of being virtually unusable. They are not computer enthusiasts, so they had only average users' knowledge of how to deal with a malware infestation. After many Google searches and numerous attempts to clean the PC themselves, they eventually gave in to temptation (and begging from their Mac-using children who were tired of providing tech support to their parents), walked into an Apple Store, and came home with a shiny new iMac.

The first thing they noticed when they opened the box and started setting up their new computer was that the users manual was tiny. My friend's dad commented, "The computer manual is smaller than the manual for my new digital camera!"

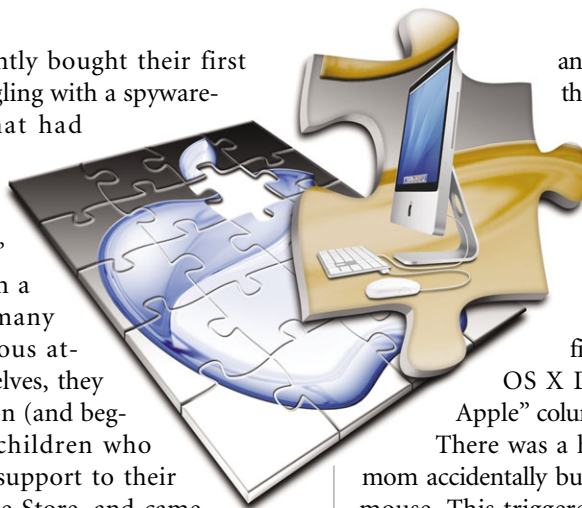
They were also amazed that they could just take the computer out of the box, plug in the power cable, connect a keyboard and mouse, and start using the iMac right away. They also liked that they just pulled the Ethernet cable out of the back of their old PC and plugged it into the iMac, and they were online immediately, without needing to configure anything.

Because they bought a digital camera earlier in the year, my friend's family had taken a lot of photos and had many digital images stored on their PC. They saved the photos to a portable USB flash drive and then plugged the drive into their new Mac. They had no trouble importing their pictures into iPhoto by dragging them to the iPhoto icon in the Dock.

Not All Smooth Sailing

Although my friend's parents were very impressed with how simple it was to set up their new iMac, they did have a bit of a learning curve as they made the transition from the Windows world to the Mac world.

The first thing they had to learn was what the Dock was and how it worked. They weren't sure initially why there were so many icons at the bottom of the screen, and they also didn't understand at first that the Dock icons are just shortcut icons



and not the programs themselves. They also thought the Dock was a little bit confusing, because Windows has a Taskbar in the same location as the Dock, but the Windows Taskbar only displays programs that are running. Once they figured out how the Dock works, though, they really liked how quickly they could access their favorite programs and files. (For more information about the OS X Dock, see last month's "A Slice Of Apple" column.)

There was a humorous moment when my friend's mom accidentally bumped the middle button on the iMac's mouse. This triggered Dashboard, a collection of widgets (small programs) that swoop in from the outer edge of the monitor to fill most of the screen. The new Mac users literally jumped. Dashboard startled them, and they weren't sure how to make the widgets disappear. In fact, they were doubly concerned because they didn't even know what the widgets were or why they were there.

The last thing that they struggled with was learning the difference between closing a window and closing a program. In Windows, when you click the red X in the corner of a window, it closes not only the window but also the program itself. In Mac OS X, however, when you click the red dot in the corner of a window, it only closes the window itself; the program continues running. At one point, they had four programs running (and consuming system resources), and they didn't even realize it.

In order to actually exit a program in OS X, you have to do one of three things: Press COMMAND-Q for Quit, click the program's name on the menu bar and then click Quit [*Program Name*], or press CTRL while clicking the program's icon in the Dock and then click Quit.

Although there has been a lot to learn, my friend's parents have been pleased with how many things were actually intuitive. They've taught themselves how to use many of the preinstalled programs without asking their grown children for help, and they're quickly becoming Mac pros. ■



Image courtesy of Apple

The Apple iMac comes with iPhoto, a program that my friend's father, a self-proclaimed technophobe, taught himself to use.

WEB TIPS

Enhance Your Time Online

Get Rid Of JPEG Jaggies

Problem: I'm trying to make a banner for my small business, but because our company logo is a JPEG (Joint Photographic Experts Group) graphic, it looks horribly jaggy when I enlarge it.

Solution: JPEGs can produce good-looking prints, if they were made at a high resolution. But one thing is for sure: You can't take a mole-hill-sized JPEG and make it look as good as a mountain. To scale an image up, it's better to use a **vector illustration** (an illustration that uses lines rather than dots, resulting in a smoother image). If you don't have a vector version, then Vector Magic (vectormagic.stanford.edu) might be your best bet. Sure, Adobe's creative software has an autotrace feature for this conversion, but it's hardly intuitive. Vector Magic's online interface is smart, clean, and surprisingly effective. Even if you're an Adobe Creative Suite freak, it's worth giving this bit of Web software a go.

Mint Makes Money Matters Easy

Problem: I'd like to get a better handle on my finances, but most of the accounting software/Web sites that I've found require so much work it's not worth it.

Solution: Fresh new money management site Mint (mint.com) offers interesting analytical tools to complement your online banking site. Enter your financial info, and Mint pulls all of your online transactions into its system (it claims a doubly secure system, because in addition to "bank-level security," you don't enter any personal identity info). The charts and categories could come in handy when tax time rolls around. But the real value add is the feature that serves up custom money-saving offers based on your spending.

Simplify Email Conversations

Problem: When trying to plan a recent family event, there were so many emails going back and forth that it



Catalog Choice is like the Do Not Call list for unwanted paper catalogs.

became impossible to follow the conversation.

Solution: While probably not that practical for casual conversations, 9cays (9cays.com) offers a group email solution that could prove useful to electronic discussions that are long-term and/or involve many participants. Sign up, start a conversation, and get a unique email that everyone can respond to (no more forgetting to click Reply To All).

Snail Mail Spam

Problem: My snail-mail mailbox needs a junk filter. Every day I get so many catalogs and flyers that it's driving me nuts.

Solution: Whether you are looking to be green by reducing the number of paper products stuffing your mailbox or you're simply sick of getting catalogs you don't want, there's a solution that's at least effective enough

to spook the direct-mail industry. Big retailers are mostly mum about Catalog Choice (www.catalogchoice.org), which lets you sign up free and select the catalogs you don't want to receive. *Business Week* reports that as of December 2007, the site has signed up over 300,000 people. As of this writing, the service is U.S.-only.

A Little Loan That Matters

Problem: I've heard about microloans and microfinance, but I'm not sure how best to get involved.

Solution: Microfinance involves providing financial services like loans and insurance to the poor. A site such as Kiva (www.kiva.org) provides the infrastructure to connect socially minded individuals with entrepreneurs in developing countries. Lenders can offer up individual amounts (capped at \$25 as of this writing), which usually get repaid in six to 12 months. There are criticisms that the interest rates for borrowers are high (though not as high as local banks). But judging by the number of people applying for microloans and the equally high number of lenders signing up with Kiva, there must be some successes in all those stories. ■



Money site Mint is online banking on steroids.

It's Time To Decorate



Getdecorating.com

www.getdecorating.com

If you're looking for home decorating inspiration, this is a great place to start. The site has thousands of pictures of tastefully decorated rooms and home exteriors. You'll find photos of all the rooms you'd expect to see, such as bedrooms, kitchens, and living rooms, but you'll also find ideas for security systems and our favorite room: the home theater. You can view several photo galleries from each category free, but a membership includes access to all of the photos and an Idea File that bookmarks your favorite pics. Memberships start at \$16.99 per month.

DoItYourself.com

www.doityourself.com

We're often surprised by how quickly a seemingly easy paint job turns into a decorating disaster. If you're looking for some expert painting advice, check out DoItYourself.com's Decorating And Painting section. Its articles will bring you up-to-speed on the basics of home decorating, particularly as it applies to painting. By the time you've finished the Color And Design articles, you'll be ready to make informed

decisions at the local paint shop. Other educational tidbits in this section include articles about putting up wallpaper and furnishing your gorgeous new room.

Home Decorating.com

www.homedecorating.com

You've painted the walls, put up the blinds, and recarpeted the floor. All you need now is furniture that captures the spirit of your newly decorated room. Enter Home Decorating.com, a Massachusetts-based online furniture retailer that offers a huge selection of styles. You'll find modern chairs that belong on the deck of the Battlestar Galactica and canopy beds that harken to an earlier era. If your decorating plans involve a new widescreen flat-panel TV, you're in luck: Home Decorating.com has a huge selection of TV wall mounts.

MarthaStewart.com

www.marthastewart.com

MarthaStewart.com is everything home and some that isn't: You'll find sections dedicated to cooking, crafts, gardening, holidays, entertaining, and even weddings. The site's light

and airy design packs in the content without distracting readers. The Home & Decorating area features a must-read Decorating 101 article series and plenty of articles about painting techniques and painting special effects. Of course, your newly redecorated room won't look nearly so inviting next year if you ignore it, so be sure to check out the Maintaining articles.

Rental Decorating Digest

www.rentaldecorating.com

Decorating Web sites and magazines often focus on homeowners instead of renters, so we're not surprised to see a Web site devoted to rental decorating. You'll find articles about feng shui decorating, several small space decorating guides, and some great ideas for room lighting. A Special Features section keeps you updated on the latest decorating trends, and the Style Guide section's articles will help you give your apartment a distinctive look. Interestingly, the site covers more than rental decorating. The My First Space section, for example (click First Time Renter on the main page), features articles about doing rental walkthroughs, the moving process, and keeping your apartment safe.

Style at Home.com

www.styleathome.com

Style at Home magazine's Web site has tons of free articles for visitors who are interested in home decorating and the art of entertaining. Check out the Interiors section (click Home & Garden and Interiors) to enjoy Style at Home.com's collection of photo slideshows and then head over to Organizing 101 to get some quick tips for keeping your newly redecorated home clutter-free. The Web site also has active forums on a range of topics, including Home Renovations, Lighting, Kitchen And Bath, and Paint And Flooring. Visitors can read any forum threads, and members can post messages (membership is free).

That's News To You

Finding the appropriate online group to match your interests can be a monumental task. So each month, we scour the Internet to bring you the friendliest forums and most interesting bloggers the Web has to offer. This month, we talk to a blogger with some great decorating ideas.

The Thrifty Decorating Blog

www.thriftydecorating.com

Decorating doesn't require loads of cash if you're rich with inspiration—and we happen to know of a great place to find that inspiration. At The Thrifty Decorating Blog, which bears the tagline “The chronicles of my budget decorating adventures,” author Lourdes Dumke shares her insights and points out some noteworthy decorating ideas on the Web.

The Thrifty Decorating Blog has dished on decorating since 2006, but Dumke has covered decorating as a journalist, editor, and book author since 1999. “My love for finding bargains began when I was a kid, when my father started taking me to flea and antique markets, showing me how to bargain with vendors and recycle something used and inexpensive into something useful and even beautiful,” says Dumke.

Dumke also pens the *Fortyish Is Fab* blog (www.fortyishisfab.com). “I really feel like my 40s are, so far, the best time in my life, and I wanted to reach out and share and communicate with women my age, so I started this blog,” says Dumke. “The response has been great, and I cover topics like news of interest to women, health issues, elderly parents (my mother is in the advanced stages of Alzheimer's disease), religion, and raising a teenage son and daughter.”



Share The Wares

Some of the best apples in the online orchard are the free (or free to try) programs available for download. Each month, we feature highlights from our pickings. This month, we rearrange the living room and compare wallpapers from the comfort of our desks.

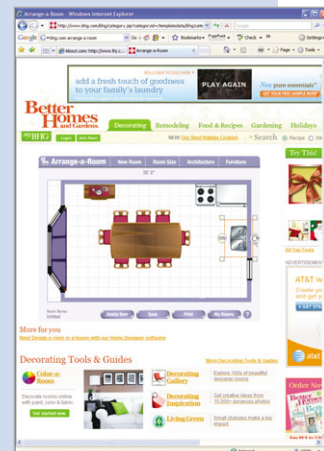
Arrange-A-Room

www.bhg.com

Rearranging your furniture isn't an easy task, particularly if you have some heavy items, such as a large sofa or an entertainment cabinet. If you're in the mood for a new layout but want to see how it would look before you invite the neighbors for a furniture-moving party, check out *Better Homes and Gardens' Arrange-A-Room*.

This free, online program gives you a birds-eye view of your room. You'll start with a blank grid, to which you can add walls, windows, and furniture, furniture, furniture. The program supplies plenty of furniture images, including couches, tables, chairs, stoves, and even radiators. What makes this tool so much fun is that it's so easy to use—you can drag that couch from one end of the room to the other with a flick of your wrist. If only the real thing were this easy.

You can print your Arrange-A-Room layout anytime, and you can even save it (so you can come back to it later) without signing up for a membership. To start arranging your room, click the Decorating tab at the top of the main page and then click the More Tools & Guides link in the middle of the page. Find the Arrange-A-Room tool in the Decorating area.



Tired of trying to rearrange your dining room or living room in your mind? *Better Homes and Gardens' Arrange-A-Room* tool lets you arrange and rearrange to your heart's content.

Showoff Virtual Designer

www.showoff.com

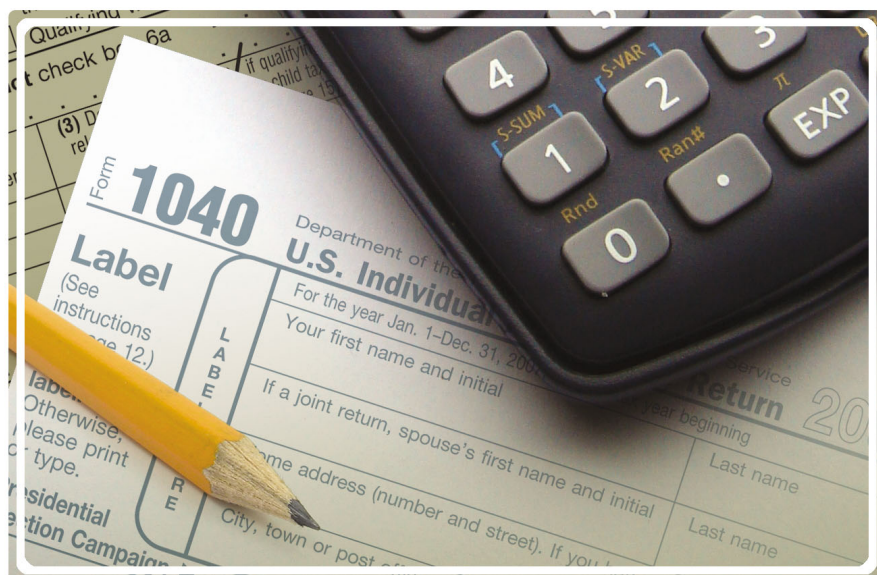
You're thinking about having some landscaping done, but you're having trouble imagining how it would look in your yard. Enter Showoff.com's free software, which lets you use a picture of your own yard (or, if you prefer, one of its sample photos) to see how real products would appear.

We like the software's instructional wizard, which starts when you first open the program. It shows you how to browse the software's huge plant and product selections and teaches you everything you'll need to know about moving and placing objects. Each item has a detailed description, and plants have hardiness zone ratings to help you place them in areas where they'll thrive. Showoff Virtual Designer is a small download (only 2MB). ■



Tax Time

Sites & Services To Help Prepare Your Taxes



Tax season is almost upon us. While collecting all the information and filling out all the forms can be daunting, you can make filing your taxes easier than ever this year. We'll direct you to several useful and trustworthy Web sites available to help you save money, download state and federal forms, and answer questions you might have about your tax return.

Federal & State Agency Web Sites

If you have a question regarding forms, procedures, or tax law, the IRS Web site (www.irs.gov) has all the answers you need for filing your federal taxes, while your state's tax administration agency Web site will have information about filing your state taxes. The enormity of the information can be a bit intimidating, but you can be sure the information found here is credible and correct.

If you are filing federal taxes for you and your family, click the Individuals

tab at the top of the IRS Web page, which will take you to information specifically for individuals. From there, you can select which category of individual (Employee, Farmer, Self-Employed, etc.) best applies to you. When you select the specific category of individual, you will be taken to an informational page. On this informational page, you can find facts and forms that relate to you.

If you own a business, or if you need information about retirement plans or tax exempt bonds, there are

tabs on the IRS home page that will take you directly to those informational pages, as well.

You can also view and download federal tax forms, such as the 1040, from the IRS Web site. On the IRS home page, there is a list of the most frequently requested forms and publications in the upper-left corner. You can fill these forms out on your computer, making it easy to electronically file your taxes (which we'll discuss later). All you need to do is click the form you want and then fill in the blank spaces on the form, just as you would if you printed out the form. When you're done, you can print it out to mail in or save it in order to electronically file it later.

State tax administration agency Web sites will vary from state to state. Most, if not all, tax administration agency sites will have information on the latest tax law changes, and you will likely be able to download tax forms from the Web site, as well. Most states will also have the answers to frequently asked questions, along with information on electronic filing and other special programs.

A helpful Web site to use when you are trying to find information about your state is the Federation of Tax Administrators Web site (www.taxadmin.org). This site is designed to help state tax administrators find and share information, but you can use information on this site, as well. This Web site will guide you to forms and procedures through links to your state's tax administration agency

Web site. To get to your state's tax administration agency Web site, click Links in the upper-right corner of the Web page. Select your state from the map, and it will take you directly to the site.

The IRS Web site is a great resource for information on filing your taxes.



H&R Block

If sifting through all the information on government Web sites gets too overwhelming and confusing, then visit H&R Block's Web site (www.hrblock.com). It's designed to appeal to the average taxpayer. It provides clear, concise information that allows you to easily find the answers you're looking for. Information about every kind of taxpayer is available on this site, and it includes articles about issues such as college planning, common tax return mistakes, and year-end tax tips.

If you are not planning on using any of H&R Block's paid services and you just want to do your taxes on your own, click the Tax Tips tab. This will take you to a Web page filled with useful tools to help you with your taxes. On this page, you can find links to help you fill out and download forms. And just like with the IRS Web site, you can fill out forms electronically.

The Tax Tips Web page can help you save money by offering a series of tools to help you find overlooked deductions, real estate deductions, and deductions from charitable donations. This Web page also includes a 2007 Tax Law Changes link. Read up on recent changes by clicking the link in the green More Tax Resources box.

The Calculators tab on the H&R Block home page is also helpful. The Calculators page has a tax estimator, so you can estimate how much you owe and what your return will be. At the bottom of the Calculators Web page, there is a list of all the calculators H&R Block provides, including an AMT (alternative minimum tax) estimator and a self-employment estimator. You'll find additional tools in the sidebar on the right side that lists links to tools such as IRS Forms and calendars.

More Useful Sites & Tools

Bank chains will sometimes have helpful information to assist you with

Which Online Tax Program Is Right For You?

TurboTax Online (www.turbotax.com)

TurboTax Online offers a tax program to fit everyone's need. All of the TurboTax editions offer e-filing and state returns (\$25.95 per state for the Free edition and \$29.95 with Basic, Deluxe, Premier, and Home & Business), and TurboTax also allows you to check a hard copy for errors. You can

use the Free Edition for the federal 1040EZ form and other simple returns. TurboTax Basic (\$14.95) adds the ability to import information from Quicken, QuickBooks, or Microsoft Money. TurboTax Deluxe (\$29.95) will search for over 350 types of deductions and adds a tool that will reduce the risk

of an audit. TurboTax Premier (\$49.95) will not only maximize your deductions, but it will also handle your investments and rental properties. For business owners, there is TurboTax Home & Business (\$74.95). This program handles both your personal and business deductions for a maximum return. ■

TaxCut By H&R Block (www.taxcut.com)

While TaxCut does not have a free program for simple returns like TurboTax, it does offer similar products, and with some of the programs you will have the opportunity to speak with an H&R Block tax professional. All programs allow for e-filing, and you can add state returns to the Basic and Premium editions for \$29.95. (With the Premium + State edition, you won't pay an extra fee to file state returns.) Additionally, TaxCut provides

Worry-Free Audit Support with each program, just in case you get a call from the IRS.

The Basic program (\$14.95) operates through easy, interview-style questions and will check for errors and omissions. You can also import last year's tax and financial data from TaxCut online, TaxCut software, TurboTax software, or participating H&R Block offices. The Premium edition (\$19.95) includes a free phone call to an H&R

Block tax professional, maximized deductions, help deducting business expenses, investor guidance, and a video with tax tips. The Premium edition will also provide quick access to important IRS publications and information. The Premium + State edition (\$44.95) adds the ability to file your state returns, along with Federal Data Transfer, which moves your federal data to your state return to save time and avoid errors. ■

TaxACT (www.taxact.com)

TaxACT is more affordable but slightly more limited than TaxCut and TurboTax. TaxACT offers e-file with all of its programs, but only the Ultimate program includes both federal and state returns in the price. You can file a state return with the Standard and Deluxe versions for \$13.95.

The Standard program is free and offers easy, interview-style questions,

error checks, maximum deductions, and technical support over email and the Web. The Deluxe program (\$9.95) adds "Your Income Tax," by J.K. Lasser, help with new life events, a state tax estimator, and a free support phone call. The Deluxe program also includes the ability to import information, income tax calculators such as a self-employment

adjustment worksheet, and reports on subjects such as joint vs. separate national averages comparisons. Another helpful tool is the Where Does Your Money Go table that tracks where you spent your money that year. The Ultimate program (\$16.95) adds the ability to prepare and file both state and federal returns. ■

your taxes, as well. For instance, Wells Fargo has an entire section of its Web site devoted to tax filing (www.wellsfargo.com/tax_center). Wells Fargo offers services such as an update on tax law, tax payment options, a tax calendar, and downloadable tax forms from the IRS Web site. One of the more useful links is the Taxpayer Checklist that Wells Fargo provides. This will help you to get organized, and it will give you a good head start if you've never before filed your own taxes. From the Wells Fargo Tax Center home page, click Filing Your Taxes. The Tax Payer Checklist link is provided there, along with links to other helpful tools.

Also, Yahoo! Taxes (www.finance.yahoo.com/taxes) is a Web site devoted to providing information about taxes. On this Web site there are several articles to give you tips and advice. There are also helpful calculators to help you determine things such as the tax savings that are generated by your mortgage and the advantages of an annuity.

MSN.com also has a tax page (tinyurl.com/22js5c). Like Yahoo! Taxes, the MSN MoneyCentral Tax Center offers articles with tips and advice. Not sure if you should be doing your own taxes? MSN has an online quiz you can take to test your Tax IQ and determine whether you have all the information you need. You'll find it in the Tax Tools And Calculators section on the right side of the page.

Electronic Filing Options

Many individuals are turning to electronic filing because of lower error rates and faster refunds. Many also find it to be quicker and easier than filing taxes through the mail. Ask your employer about getting your tax forms sent electronically via email. You are likely to receive the forms you need more quickly. On the Web, there are also a couple of tools and options to help you electronically file your taxes.

The IRS has approved Efile (www.efile.com) for use when electronically

How To E-file

Efile (\$29.95; www.efile.com) has been approved by the IRS to help you electronically file your taxes with the IRS. You may not qualify for Efile if you have a foreign address, you want to electronically file your state—but not federal—return, or your status is “Married Filing Jointly” and only one spouse earned income, coupled with a Child Care Credit claim.

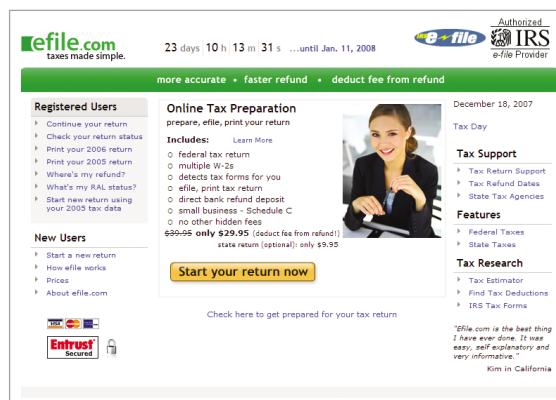
To begin, click the Start Your Return Now button. Efile will ask you several questions and then fill out the necessary forms for you. Efile can perform calculations for both federal and state taxes (state

returns cost an additional \$9.95). If you need any help, Efile has Tax Guide and Support online, along with other helpful links to support sites. Additionally, Efile has Stop N' Go, which allows you to take a break from filing, come back later, and pick up where you left off.

Once all the forms are filled out, you can print off hard copies to view and store with other years. Efile will double-check for errors and omissions, and then you will get a list of options. You can either electronically file your return directly to the IRS, or you can print it off and mail it. You also

have the option of directly depositing your refund into your bank account or getting a check in the mail, or you can pick the RAL (Refund Anticipation Loan) service. The refund process will be quicker, however, if you choose to directly deposit your refund into your bank account. Finally, you can choose to pay the \$29.95 Efile fee by deducting it from your refund, or you can pay for Efile via credit card.

The last things for you to do are check and print your returns. You will receive an email if there are any problems with your filing status. ■



Efile is a convenient Web site that will help guide you through filing your taxes electronically.

the Web site, you will be given all the information you need to complete your payment.

Quick & Easy Money

Whatever route you decide to take with your taxes—tax professional or not—consider doing as much as you're comfortable with electronically. Whether it's paying your taxes, getting your refund deposited directly into your bank account, or filing your forms electronically, you are likely to get a quicker refund. Also, remember that the answers to your tax questions are usually just a few clicks away. ■

BY TESSA WARNER BRENNEMAN

Registration Key Ramblings

I recently had to manually enter a finger-flailing 61-digit registration code for a program I was reviewing. I began weeping somewhere around the 25th character, openly sobbing by the 40th, and lost the will to live by the 50th. Why do vendors who foist these fetid codes upon us insist upon using digitally androgynous alphanumeric characters? Is there anything more frustrating than painstakingly entering a registration code, only to be forced to a screeching halt while you try to figure out, "Is that a zero or the letter O? Is that a numeral one or a lower-case letter l? Is that a B or an 8?" Are we unwitting pawns in a demented game of Registration Roulette, where an incorrect guess is a punishable offense that requires starting over again?

As an astute chronicler of the computing scene and a Pulitzer-lacking journalist, it is my professional responsibility, indeed it is my moral obligation, to help right wrongs as I observe them. I therefore offer this suggestion to all purveyors of registration codes: Stop with the ambivalent characters already. With billions of alphanumeric combinations within your grasp, if you simply eliminate the digits 1 (one) and 0 (zero) and/or the letters I (as in "Intolerable") and O (as in "Outrageous"), you will forever eradicate the confusion that arises when attempting to enter registration codes and using those copy-the-characters, "Yes-I-am-human" verification devices so popular, and yet so annoying, on many Web sites. If there is any reason you cannot do this for your beloved customers and users of your products, email me at MrModem@mrmodem.com and share your thoughts.

What's the skinny on your ZIP code? What better place to look than www.zipskinny.com? Enter your ZIP code and view U.S. Census data and comparisons with neighboring ZIP codes. Oh, go ahead and type in 90210. I won't tell.

Is your PC contributing to global warming? One way to find out is to install the free LocalCooling (www.localcooling.com) utility. This utility will also make your PC more efficient. You can choose between low, medium, high, or "Ozone layer, Shmozone layer" settings. Windows XP or Windows Vista (the utility is designed for WinXP) is required, and while this little porker is 2.5MB, it is more fun than a barrel of modems.

The Chinese government has a long-standing tradition of restricting access to information on the Internet. Enter a Web address at www.greatfirewallchina.org/test to determine if your favorite site is blocked. Hint: Chances are it is. I entered www.mrmodem.com and discovered that I'm not

welcome, which would account for the dearth of Beijing-based subscribers to my weekly newsletter. I checked www.smartcomputing.com, too. Not a chance.

If you frequently lose your cursor on-screen, here are two ways to pamper your peepers with pointers: First, click Start, Control Panel, Mouse (in Classic View), and the Pointer Options tab and select the Show Location Of Pointer When I Press The CTRL Key box. Whenever your cursor goes into hiding thereafter, press the CTRL key.

A little sonar-like series of circles will identify the pointer's location. To pump up your pointer, click Start, Control Panel, Mouse, and the Pointer tab. Using the drop-down menu under Scheme, select Windows Black (Large) System Scheme and then click Apply and OK.

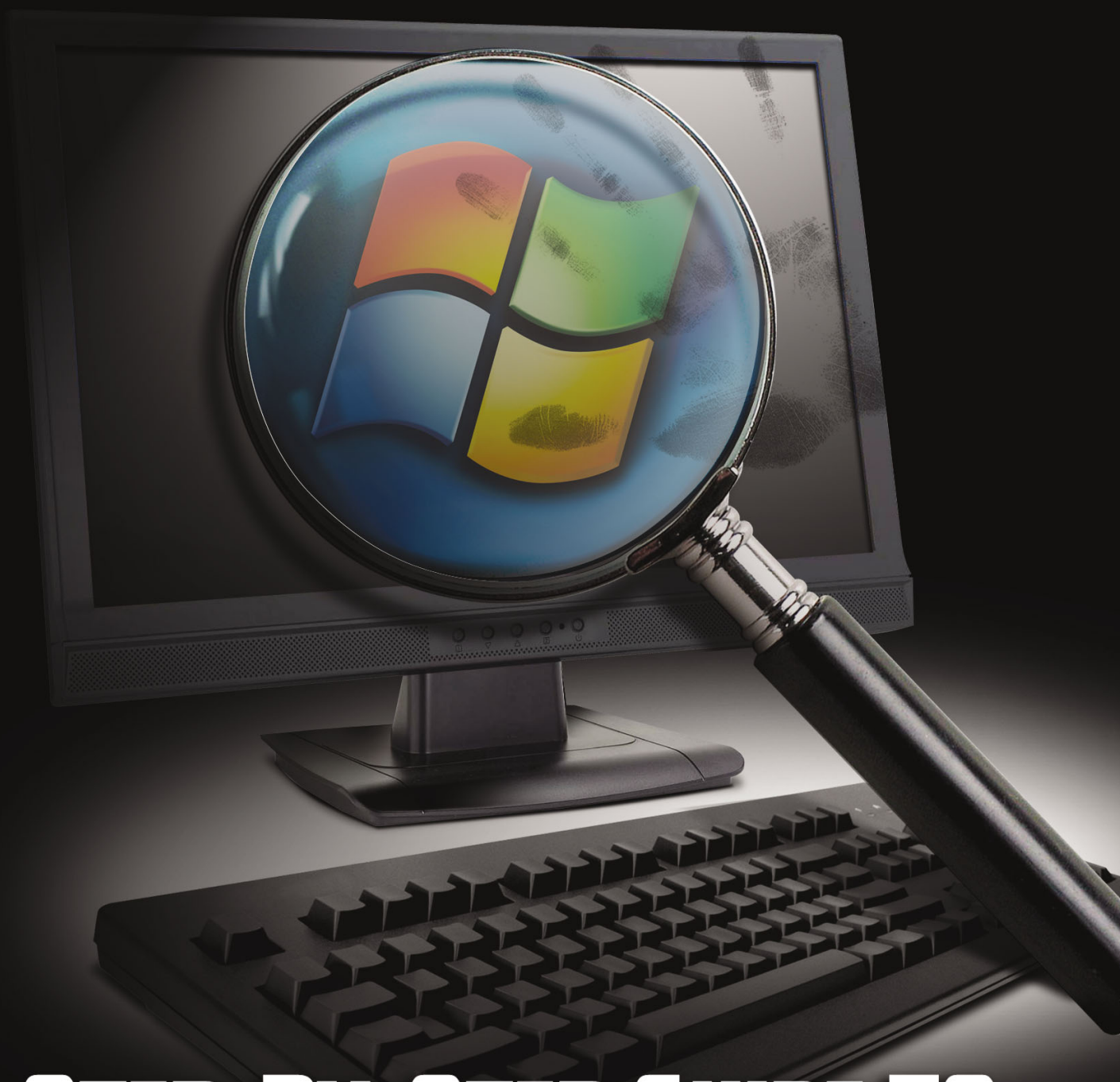
One of the most frequently used though seldom discussed fixes deployed by cable company tech support personnel can be described in a single word: unplugging. Any time your cable modem seems sluggish, or if you lose your connection (which I usually follow by losing consciousness), unplug your cable modem and then your router, if you're using one. Indulge in a minute of reflection. Emerging refreshed and renewed from your spiritual journey, plug in the router and the modem and then breathe deeply for another couple of minutes while they resync. This simple-yet-rejuvenating routine can often save you a call to your cable company for assistance. Not that it's unpleasant talking to Bangalore Bill, but give this a try. You might be surprised.

Remember making hand shadows on the wall? My "bunny rabbit" always brought the crowd to its feet. Okay, so they got up to leave, but I still say it was a classic. The art and science of hand shadows have come a long way, but you haven't seen anything until you've seen the stunning handiwork of Raymond Crowe. You'll find several of his videos on YouTube (www.youtube.com), but his finger-cramping tribute to Louis Armstrong (tinyurl.com/22zo8o) is extraordinary and well worth watching.

I began this month's column with a mini-rant about registration codes. Now it's your turn: What has your cables in a knot? E-me at MrModem@mrmodem.com and let it all out. You'll feel better. Trust Dr. Modem. ■

BY MR. MODEM

Mr. Modem (Richard Sherman) is an author, syndicated columnist, radio host, and publisher. "Mr. Modem's Weekly Newsletter" provides personal responses to subscribers' computer and Internet questions, plus weekly computing tips, Web site recommendations, virus alerts, hoax warnings, and more. For additional information, visit www.MrModem.com.



STEP-BY-STEP GUIDE TO FIXING COMMON PC PROBLEMS

HOW TO SOLVE... PROBLEMS IN VISTA

No matter how much Windows has changed over the years, the one thing that remains constant is that it doesn't always work properly. Windows Vista was designed to be more powerful yet easier to use than was Windows XP, and on many levels, it is a success. However, anytime you get a bunch of hardware and software trying to communicate with an operating system, there's bound to be trouble.

Have You Updated?

Before you troubleshoot any nagging Vista problems, use Windows Update to make sure the operating system is as patched as possible. To do this, click Start, select All Programs, and click Windows Update. Click Check For Updates on the left and wait for the scan to complete. Clicking Install Updates automatically installs patches that Microsoft considers to be critical, but you can also click View Available Updates to see if any optional patches are available that are of interest.

Make sure you click the Change Settings button when you are finished and click the Install Updates Automatically radio button. Use whichever settings you prefer in the drop-down menus, but enabling automatic updates will head off a lot of problems before they begin.

Now that Vista is as shiny and new as you can make it, it's time to delve into some of the more common problems you'll face while using it. Note that anytime we ask you to perform tasks in the Control Panel, we assume it is in

Classic View mode, which you can enter by opening the Control Panel and clicking Classic View on the left.

Problem: I want to uninstall a program, but there's no option to do so on the Start menu.

Solution: If software doesn't come with its own uninstall utility, Vista has a built-in solution. Click Start, click Control Panel, and double-click Programs And Features. Scroll down the list until you see the name of the program you want to uninstall (sometimes it is listed with the manufacturer name first, so look for that if the software name isn't listed), click the entry, and click Uninstall from the bar at the top of the list. Follow the steps that appear (they vary from program to program) and reboot the computer when you are finished.

Problem: Vista interrupts me all the time with User Account Control pop-ups when I'm trying to do something.

Solution: Vista was designed to be much more secure than was WinXP,

and UAC (User Account Control) warns you every time it detects that something is being installed or modified. The utility is designed as a first line of defense to ensure that viruses and other intruders aren't installing or modifying things without your knowledge, but it can be a real annoyance.

If you feel comfortable turning UAC off (realizing that overall security will diminish), close all open programs, click Start, click Control Panel, and double-click User Accounts. Click Turn User Account Control On Or Off, click Continue, and deselect the Use User Account Control (UAC) To Help Protect Your Computer checkbox. Click OK and click Restart Now.

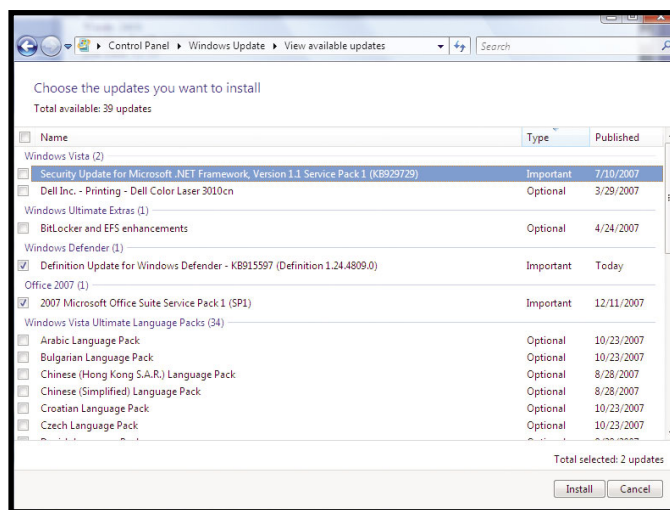
Problem: The Recycle Bin (or another Windows icon) is no longer visible on the Desktop.

Solution: Right-click an open area of the Desktop and click Personalize. Click Change Desktop Icons on the left and select the checkbox next to the icon you want to restore before clicking Apply.

Problem: When I connect a device such as a digital camera to the computer or insert a CD into the drive, Vista automatically does something I don't want it to do.

Solution: Vista maintains default program settings for all types of hardware and software, and fortunately, changing them is a breeze. Click Start, click Control Panel, and double-click AutoPlay.

Remove the check mark from the Use AutoPlay For All Media And Devices box if you want to disable the feature



Using Windows Update can prevent the majority of system attacks and often adds new features to Vista.

completely. Otherwise, use the drop-down menus next to each entry to select the default behavior for that entry. Click Save when you are finished.

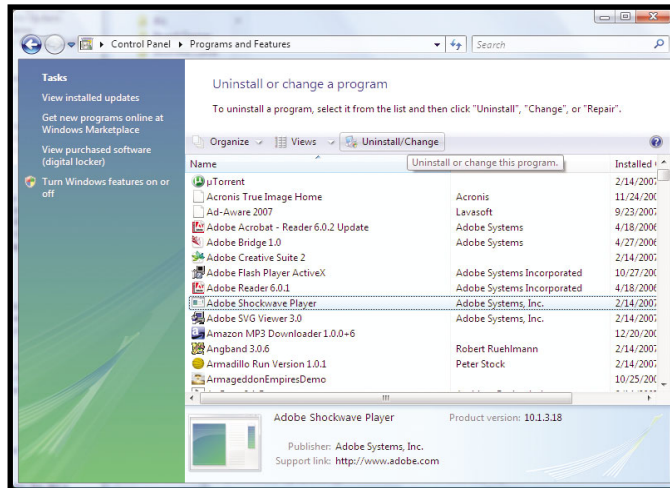
Problem: I tried to do something, but a message popped up telling me I needed to Run As Administrator.

Solution: This message tells you a program needs more security permissions from Vista than are currently available to it. It can happen when you are logged in to a Guest account instead of your main Vista account or when a program doesn't work well with Vista. In the former situation, log in to an account that has administrator privileges and try again. In the latter situation, right-click the icon for the program (or its shortcut icon) and click Properties. Select the Compatibility tab and select the Run This Program As An Administrator checkbox if it is available before clicking Apply.

Problem: I have a legacy program that doesn't run (or doesn't run well) in Vista.

Solution: Most programs intended for WinXP also work with Vista, but there are still some WinXP programs, as well as many programs from earlier versions of Windows, that either don't run well or won't run at all under Vista. Check the manufacturer's Web site first to see if any Vista compatibility issues exist or if patches are available, because some Windows software won't work with Vista no matter what you try.

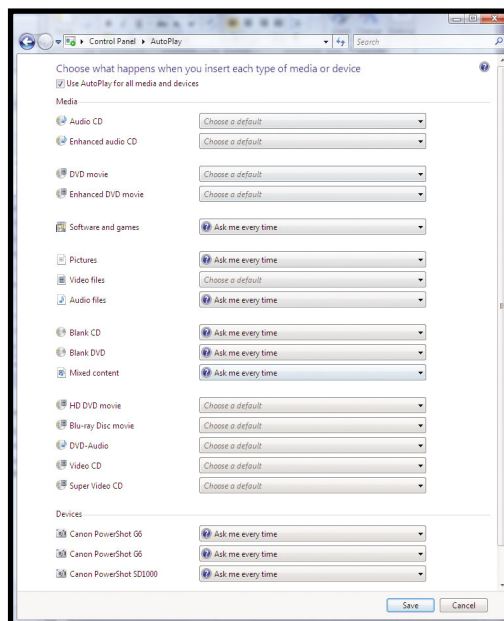
The next step is to run the software in Compatibility mode. This setting tells Vista to copy certain aspects of an earlier operating system so that the problematic software thinks it's running on



Use the Programs And Features menu to evict programs that refuse to leave the Start menu.

the earlier version. It must be applied on a program-by-program basis, so right-click the program's icon and click Properties. Click the Compatibility tab, select the Run This Program In Compatibility Mode For checkbox, and use the drop-down list to select an operating system that you know is compatible with the software. Click Apply and run the software.

Very old Windows software sometimes won't work unless you return to the Compatibility tab and select one or more of the Settings checkboxes. Try



Disable Visual Themes, Disable Desktop Composition, and Disable Display Scaling On High DPI Settings first. If that does not work, select Run In 256 Colors, as well. If that still doesn't do the trick, select the Run In 640 x 480 Screen Resolution box. When no combination of settings works, you'll have to contact the manufacturer or wait for a patch that makes the software compatible

with Vista.

Problem: Icons keep disappearing from the System Tray.

Solution: If there's an arrow next to the System Tray, click it and the seemingly missing icons will reappear (they are set to automatically hide so more space is freed on the Taskbar). If you want to always see the icons in the System Tray, right-click any empty portion of the Taskbar, click Properties, and select the Notification Area tab. Remove the check mark from the Hide Inactive Icons box or click Customize to establish your own settings. You can also deselect individual system icons here to remove them from the System Tray before clicking Apply.

Problem: Every time I double-click a file, it opens using a program I don't want to use.

Solution: Vista uses defaults such as Internet Explorer to open Web pages and Notepad to open plain text documents, but you can easily point any file type you want to open in any particular program you want to use as an alternative default. Right-click

You can change AutoPlay settings for all types of hardware and media using one convenient interface.

the icon for the file you want to open, click Open With, and click Choose Default Program. If the program you want to use is not listed in the Recommended Programs dialog box, click Browse, navigate to the program you want to use, click its icon, and click Open. Repeat these steps as necessary for any other files that need different default applications.

You can also change a variety of default settings at once by clicking Start, clicking Default Programs, and clicking Set Your Default Programs. Click the program you want to adjust on the left and then click Set This Program As Default to set it as the default for all files it can possibly open, or click Choose Defaults For This Program if you want to manually fine-tune the settings.

Problem: Folders never work like I want them to work, and I can't always find certain files or folders that are referenced in troubleshooting guides like this one.

Solution: Vista has a plethora of folder options, as long as you know where to find them. Open any folder, click the Organize menu, and click Folder And Search Options. The

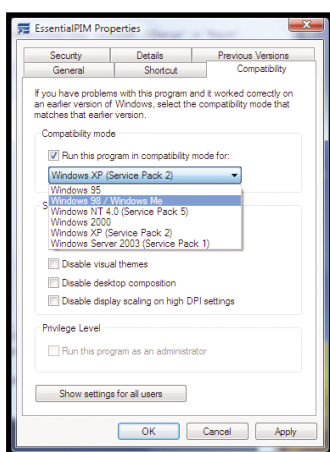
Setting up default programs that are used to open particular file types is a snap in Vista.

Before you troubleshoot any nagging Vista problems, use Windows Update to make sure the operating system is as patched as possible.

General tab has basic options that let you open folders in the same or different windows or use single-clicks instead of double-clicks to open them. The bulk of the options are in the View tab, where you can scroll

down the Advanced Settings list to find the entries you want to adjust. For example, Show Hidden Files And Folders uncovers system files and folders that Vista obscures; whereas, deselecting the Hide Extensions For Known File Types option lets you easily see what types of files you're dealing with while working with Vista. If you want to apply your settings to every single folder in Vista, click the Apply To

Folders button instead of the Apply button after you've established all the settings.



Have a legacy application that doesn't like Vista? Use Compatibility mode to trick it into working.

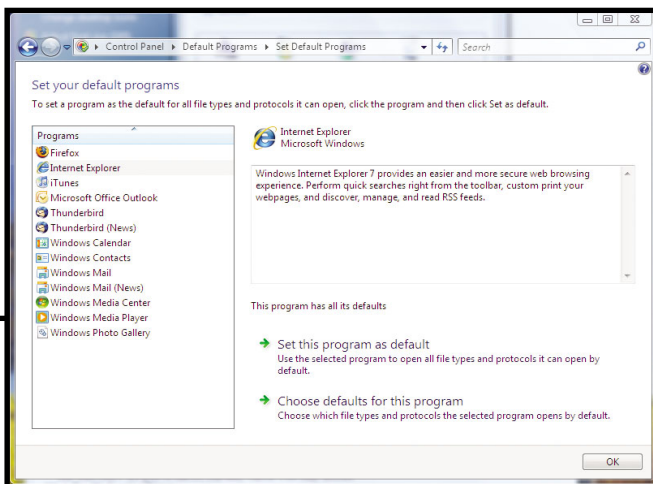
Problem: I just upgraded my computer to the maximum amount of memory, but Vista can't see it all.

Solution: When you add RAM to a Vista computer, you can see how much of that RAM Vista detects by clicking Start, right-clicking Computer, and clicking Properties. The Memory (RAM) entry shows how much RAM is detected in megabytes, where 1,024MB equals 1GB. The 32-bit versions of Vista that most consumers use can access up to 4GB of RAM, but there's a catch. Video cards and other devices that have RAM chips installed use up a portion of that 4GB total; so if you have 4GB of RAM installed and also have a 512MB video card installed, Vista reports that it sees only 3.5GB of RAM.

If you really need 4GB or more of RAM and a video card that has a lot of RAM, the only solution is to upgrade to one of the 64-bit versions of Vista (Vista Home Basic or Vista Home Premium), which can access 8 to 16GB of RAM depending on the version. A lot of consumer applications are designed to work with the 32-bit operating system and not the 64-bit one, however, so overall you're better off either installing less RAM in the first place (2GB is recommended) or installing 4GB with the knowledge that Vista can't use all of it.

Problem: There's a big folder called \$Windows.~Q taking up a bunch of space on the hard drive.

Solution: If hard drive space is at a premium and you upgraded to Vista from WinXP, you may notice a super-sized folder named \$Windows.~Q. It's not



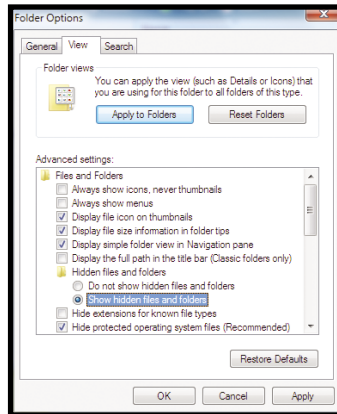
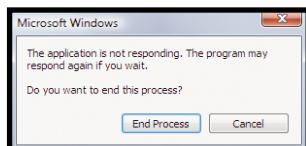
a virus or anything nefarious like that. Instead, it's a collection of WinXP files that were saved during the upgrade so that WinXP could be restored in case something went wrong during the Vista installation. If Vista is running fine, you can safely delete all of these files using Disk Cleanup. Click Start, click All Programs, click Accessories, and click System Tools. Click Disk Cleanup and use the drop-down menu to select a drive to clean (C: is the usual choice here). Click OK. Wait for the calculations to complete and then click the Disk Cleanup tab. This lists all of the deadweight files that are just taking up space on your hard drive and serving no useful purpose, so feel free to put check marks in any box. The option that will get rid of that strange \$Windows.~Q folder is Files Discarded By Windows Upgrade. Click OK, and the folder should disappear.

Problem: A program is stalled, and I can't close it.

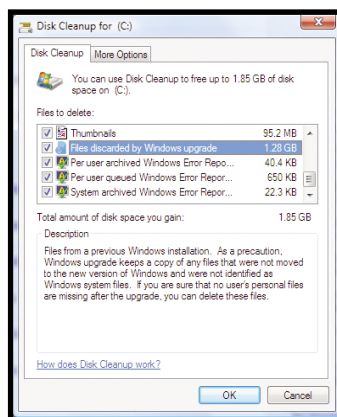
Solution: The best thing to do in this situation is to get up from your computer, get a cup of coffee, come back, and see if the problem has sorted itself out. Programs sometimes stall because they ask for more resources than Vista can give them, and although they look frozen, they're still using the resources they do have to tackle a problem. Waiting several minutes often gives programs the time they need to complete the task and lets you close the program normally so no data is lost.

If that doesn't work, right-click the program's entry in the Taskbar and click Close. However, whatever files were open in the program at the time may be lost. Repeat this a few times if

If you see this message, wait a bit to see if the problem can resolve itself or you risk losing data.



Vista hides system files and folders by default, but you can reveal them using the Folder Options menu.



If Vista is running well after a recent upgrade, you can safely remove all of the Windows XP files that were left over after the upgrade.

it doesn't work the first time and the program should eventually crash, closing in the process.

Sometimes that's still not enough, and you need to turn to the Task Manager. Simultaneously press CTRL-ALT-DELETE, and when the menu appears, click Start Task Manager. Click the Applications tab, click the name of the stalled program

(Not Responding should appear next to it in the Status list), and click End Task. Finally, if that doesn't work, click

the Processes tab, try to find a process that is associated with the stalled program, click it, and click End Process. Ending the process should solve the problem, but if not, close all of your other programs and restart the computer.

Problem: I have more than one printer and want to switch the default printer.

Solution: The costs of accidentally printing to your dedicated photo printer rather than your multi-function printer add up quickly, but you can prevent that kind of mistake by setting the printer that is less expensive to operate as the default printer for all documents. Click Start, click Control Panel, and double-click Printers. Right-click the icon for the printer you want to use as a default device and click Set As Default Printer.

Note that individual applications sometimes have their own default printer settings. For example, Google's Picasa image-editing and printing software (free; picasa.google.com) will print to any printer you select in that program by default instead of using Vista's settings. Be sure to double-check the Print dialog box in any software you use to make sure it's not bypassing Vista's settings.

Need More Help?

If you use Windows Vista and are having hardware, Internet, or other trouble not covered in this article, fear not. The rest of the articles in this section cover a variety of hardware and software problems using Windows Vista as the default operating system, and these are supplemented by our Web-exclusive articles covering specific applications, as well as Vista's built-in troubleshooting utilities. If you use Vista, we've got you covered. ■

BY TRACY BAKER

HOW TO SOLVE... WIRELESS ACCESS PROBLEMS



We can't think of a "fun" computer problem, but networking glitches are particularly frustrating because they prevent you from researching the issue online. The good news is that Windows Vista has some great built-in networking tools that will help you reconnect and get back to work (or play).

Keep this issue handy; our step-by-step instructions show you how to efficiently troubleshoot your wireless access failure problem. Note that we sometimes refer to Vista's Network And Sharing Center, which is the hub of Vista's networking features. To open this menu, click the Start button, click Network, and then click the Network And Sharing Center tab.

Problem: My PC or notebook doesn't connect to my wireless network.

Solution: Follow these steps in order to troubleshoot a general connection problem. This process covers the most common problems first.

Step 1: Use Network Diagnostics.

Whether you've just set up your computer and you're having trouble connecting to the network for the first time or you've had a connection for months but suddenly lost it, the Network Diagnostics

utility is your best bet. This automatic troubleshooting tool does all the work for you. If it recognizes the problem, Network Diagnostics suggests solutions. In some cases, such as when you have a disabled network adapter, Network Diagnostics will fix it for you. That's particularly helpful for users who would rather not poke around in the bowels of the operating system.

To start the utility, open the Network And Sharing menu and then click Diagnose And Repair in the

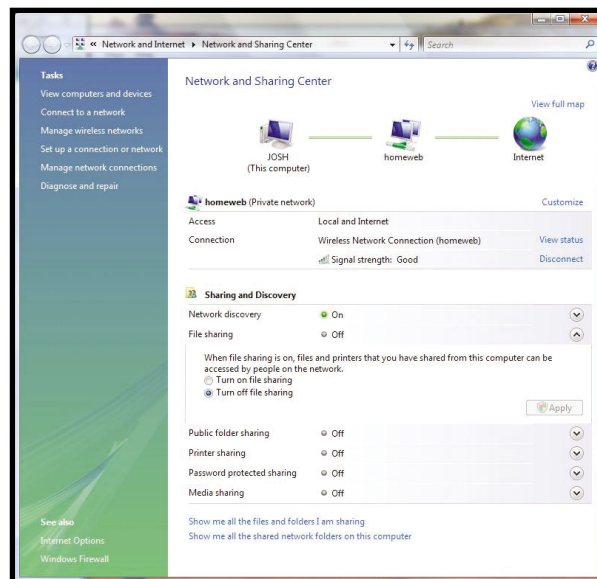
Tasks column. The Network Diagnostics tool displays an Identifying The Problem message for several seconds and then presents the diagnosis (or, if it can't find a problem, it will let you know that the search was unsuccessful).

If the Network Diagnostics utility can solve the problem for you, it displays a button, such as Enable The Network Adapter "Wireless Network Connection." If you need to manually make adjustments to your PC, the Network Diagnostics tool offers instructions and displays a button that you can click (once you've made the adjustments) so it can retest the connection and make sure your adjustments solved the problem.

Step 2: Reset your network.

Most cable modems, DSL (Digital Subscriber Line) modems, and routers have reset features that can shake them loose from networking problems. We've fixed many mysterious network ailments simply by resetting the network. To do this, power off your computers, the router, the wireless AP (access point),

and your cable or DSL modem. Unplug the devices (excluding the computer) for a few minutes and then power on all of the devices in the order that data would flow from the



The Network And Sharing Center is the hub of Windows Vista's networking features. Whether you're setting up a new network or troubleshooting an existing one, consider this menu your base of operations.

Internet: the modem, then the router/AP, then the computers.

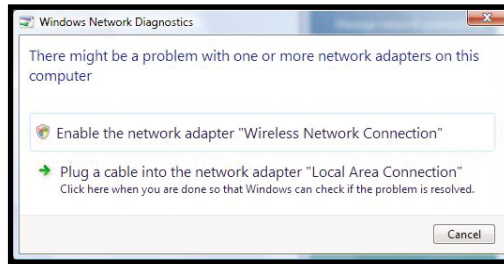
Step 3: Use the Manage Wireless Networks menu.

If the Network Diagnostics utility doesn't solve your problem, you'll need to manually troubleshoot the issue. Start with the Manage Wireless Networks menu (Open the Network And Sharing Center and then click Manage Wireless Networks in the Tasks column).

This menu keeps track of the networks to which you regularly connect or have connected in the past. It stores the settings that you use to connect to the network, such as the encryption key (if you are connecting to protected networks). This list of networks helps travelers, as they repeatedly encounter certain networks (a traveler may connect to the wireless network at an airport whenever he travels, for example). It can be a little confusing if you're new to wireless networking, however. Luckily, you need to only check two items: the network's connection order and the adapter properties.

The Manage Wireless Networks menu displays your network profiles in the order that your computer will look for them. If, for example, you normally connect to Network 1, but you've also connected to Network 2 and Network 3 in the past, you'll see all three on this list. Network 1 should be at the top of the list, so that your computer attempts to connect to Network 1 first. If it is not at the top, highlight it and then use the Move Up or Move Down arrows near the top of the menu to rearrange the profiles so that Network 1 is at the top.

Next, highlight Network 1 again and then click Adapter Properties



The Windows Network Diagnostics utility is the best tool in your network troubleshooting toolbox because it searches for problems and lets you choose a solution with a single click.

(click Continue if the User Account Control message appears). This menu helps you configure some basic settings for your wireless network adapter (the device on your computer that transfers data wirelessly to and from your network's access point). Click the Connection tab and then select the Connect Automatically When This Network Is In Range checkbox. Next, click the Security tab and make sure it displays the correct security settings in the Security Type, Encryption Type, and Network Security Key fields. If any of these settings don't match your network's settings (Security Type is set to WPA-Enterprise instead of

WPA2-Personal, for example), enter the correct settings and then click the OK button.

Step 4: Reconfigure your AP.

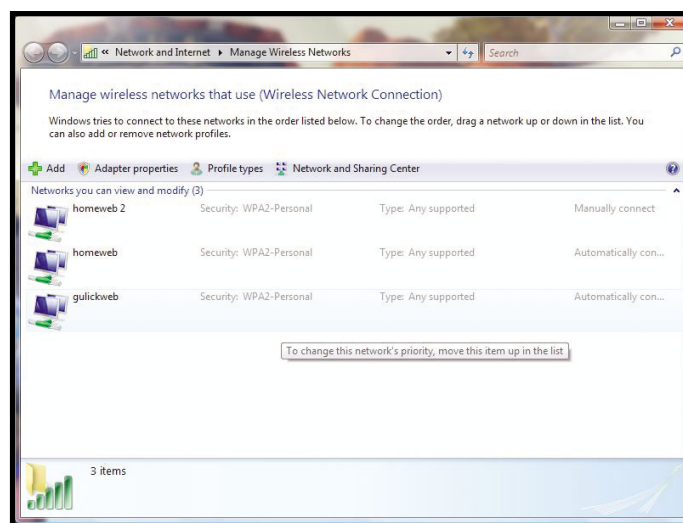
Incorrect settings for the PC's wireless adapter or for the access point are a common cause of network connection problems.

Wireless APs sometimes reset to their default settings (a power outage, for example, can cause a reset for some devices). If the AP is at its default settings, your computer likely won't be able to connect to the network until you either change your PC's settings to match the AP's default settings, or (preferably) you change the AP's settings back to the profile that matches your PC's wireless profile. We'll provide basic instructions for accessing your AP's settings via a Web browser; check your AP's manual for specific instructions.

Open your Internet browser and enter the wireless router or AP's IP (Internet Protocol) address (usually 192.168.1.1) in the Address bar. Press the ENTER key. When prompted, enter your username and password for the AP. If your router has reset itself, you'll probably get your first clue right away: The password prompt won't accept your password. In this case, you'll need to enter the default information. Check your device's manual for the default username and password. For Linksys devices, leave the User Name field blank and type **admin** in the Password field.

Once you've opened the AP's settings menu, check to make sure it has the correct wireless network settings. Start with the SSID (Service Set Identifier), which is the name your adapter will

look for when it searches for your home network. Write down the SSID on a piece of paper so you can compare



Use the Manage Wireless Networks menu to manage the settings your notebook or PC uses to connect to various wireless networks.

it to your PC's settings later. Next, note your computer's security mode, such as WEP (Wired Equivalency Privacy) or WPA2 (Wi-Fi Protected Access 2), as well as the encryption key. If these settings are blank, you'll need to select them now and choose a key.

Finally, save the settings (you'll probably see a Save Settings button in the menu) and then make sure your computer is using the same settings when it tries to connect to the network. You can check the profile (as described in Step 3), or if you want to start fresh, you can create a new profile. To do this, open the Network And Sharing Center and then click Connect To A Network in the Tasks column. The Connect To Another Network window will display any networks that are broadcasting their SSIDs within range of your wireless adapter. Whether or not you see the SSID in this list, click the Set Up A Connection Or Network link near the bottom of the window.

Select Manually Connect To A Wireless Network, click the Next button, and then follow the wizard to enter the information you noted while reconfiguring your AP. At this point, your PC should connect to the AP.

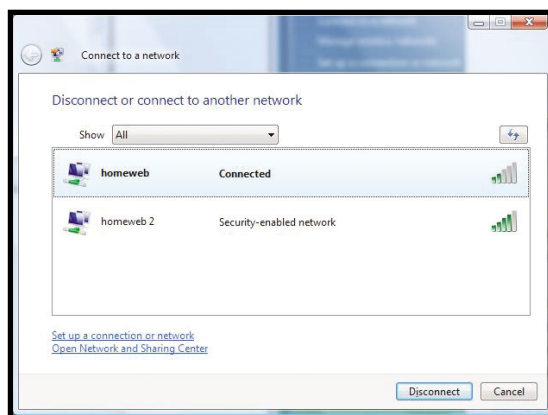
Problem: I can't find any networks at all. The Network And Sharing Center displays a Not Connected message. When I click its Connect To A Network link, I see a Windows Cannot Find Any Networks link.

Solution: Use the Device Manager to spot and fix your wireless adapter's problem. A situation such as this generally points to a problem with your PC's wireless adapter. It may have a bad **driver** (the software that helps Windows communicate with your hardware). To check your wireless adapter, right-click the Computer icon in the Start menu and then click Properties. When the System Properties window appears, click Device Manager in the Tasks column. Click

Continue if the User Account Control message appears.

The Device Manager displays a list of component types. You can see the names of your PC's components by clicking the plus (+) sign next to the corresponding component type. If your wireless adapter is having trouble, its name will appear below the Network Adapters branch, and you'll see an icon that indicates a problem. Right-click the adapter and then click Properties.

In the adapter's Properties menu, check the Device Status section on the General tab. If your device has a



The Connect To A Network window displays any networks in your area that broadcast their SSIDs. Unless your network has a hidden SSID (or isn't working), it should be displayed here.

problem, this section will describe the problem and may provide a code (such as Code 22). You can look up these error codes at www.microsoft.com. If the adapter has a driver problem, click the Driver tab and then click the Update Driver button to start the Update Driver Software wizard.

Problem: I can see networks in the Connect To A Network window, but I don't see the network to which I want to connect. I know that the network is up and running.

Solution: Connect to the network manually. Your network probably isn't broadcasting its SSID. The SSID makes the network identifiable to your adapter and any other wireless

adapters. Some network administrators disable SSID broadcasting so malicious users have a harder time finding their networks.

As long as you know the network's SSID, you can still connect manually. But before you do, we recommend that you double-check the Connect To A Network window by clicking the Refresh button and making sure that the Show field is set to All. If you still don't see the network, click the Set Up A Connection Or Network link. Next, click Manually Connect To A Wireless Network. Put the network's SSID in the Network Name field. Your PC will connect to the network just as if you selected from the Connect To A Network window.

Problem: The Network And Sharing Center indicates that I have local network access but not Internet access.

Solution: Reset the network. One of the things we like most about the Network And Sharing Center is its graphical representation of your network, which lets you quickly see which parts of your network are up (and which are down). If you see a green bar between your computer and the network, but a red X between the network and the Internet icon, reset the network (see Step 2).

Problem: I can't print or share files with other computers on my network.

Solution: You'll need to enable file and printer sharing in the Network And Sharing Center. The menu's main page lists several sharing features, such as File Sharing, Printer Sharing, and Media Sharing. Click the Down arrow next to an item to read more about it and to enable or disable it. We recommend that you password-protect folders and printers to throw up an extra barrier against a malicious user who may try to break into your network. ■

BY JOSHUA GULICK

HOW TO SOLVE ... EMAIL PROBLEMS



Even with the growing popularity of text messaging and instant messaging, many of us still prefer email as a means of communication. We love it because it's a quick way to keep in touch with family and friends. But when your email isn't working properly, those conveniences can quickly turn to frustrations. Rather than swear off the use of email, follow these tips to help solve some of the most common email problems.

Identify The Problem

Sometimes when problems occur with email, you are greeted by an error message. And while error messages are no fun to get, they are often more helpful when you need to identify the problem. When your email issues are more subtle, such as bounced email or a blocked attachment, the cause of these problems may not be specifically identified.

Try running other applications or going to other Web sites. If you are having trouble with a variety of applications and Web sites, the problem is probably not isolated to your email. Also, if you seem to be having trouble with just one contact, it could be a problem with that person's email provider and not your own.

If the solution to your problem isn't listed here, you can go to the email provider's support Web site for more help. This is usually a Web page separate from your email, even if you

use Web mail. With Microsoft Outlook, you also have a Help menu in your toolbar that includes a variety of methods to help you pinpoint and fix your problem.

Problem: I received a message from the system administrator that says my email did not reach some or all of the intended recipients.

Solution: If you receive this message or a similar message, the likely cause is that your recipient has either closed the email account, or you entered an incorrect email address for that contact.

Verify that the email address stored in your address book is the correct email address for your recipient, because you could have typed it incorrectly. If the person is not in your address book, you can open the message from the Sent folder to double-check the email address. If you are unsure whether the email address is correct, you may want to contact that person through other means to verify the email address.

If your contact confirms the email address to be correct, there is a chance the message was sent back because the recipient's inbox has reached capacity and will no longer accept messages. Sometimes, the message sent back to you will identify a maxed-out inbox as the problem.

Problem: Messages from legitimate senders are being sent to the Junk Mail or Spam folder.

Solution: If you are opening your Junk folder or Spam folder and finding acceptable email, you should add the sender to your contact list in your address book so that the address will be recognized in the future. Also, you should open the email and mark it as not being spam or reconfigure your junk mail/spam settings. If you are using Outlook, you can set these options by opening the Tools menu, clicking Options, selecting the Preferences tab, and clicking the Junk E-Mail button. For Web-based email, the location of this function will vary.

Problem: I am unable to open an attachment in Outlook.

Solution: The first thing you should check is your security settings. Many email providers may block attachments they believe could be malicious. If you are using Microsoft Exchange, the network administrator has set the Outlook Security settings and you should contact the administrator to adjust the settings.

If you're not connected to a network, you can change the security settings yourself. (Note that this involves using the Windows Registry Editor. Use caution when modifying the Registry, as one wrong entry can render your system unbootable. In addition, it's always a good idea to back up the Registry before making any changes.)

First, make sure you close Outlook. Open the Start menu, type **regedit** in

the Start Search box, and press ENTER. This will open your Registry Editor. Locate the Registry key for Outlook.

If you are running Outlook 2007, your Registry key is: HKEY_CURRENT_USER\SOFTWARE\MICROSOFT\OFFICE\12.0\OUTLOOK\SECURITY.

The Registry key for Outlook 2003 is: HKEY_CURRENT_USER\SOFTWARE\MICROSOFT\OFFICE\11.0\OUTLOOK\SECURITY.

After you've confirmed your Registry key, open the Edit menu while still in the Registry Editor, select New, and choose String Value. Type **Level1Remove** and press ENTER. Right-click the new string value name and select Modify. Specify the file name extension you want to open in Outlook (for example, .EXE). Separate multiple file extension names with a semicolon. Click OK. Exit the Registry Editor and then restart your computer.

Problem: I'm having trouble attaching a file with my Web mail.

Solution: If you are using a Web-based email client, such as Yahoo!, it's likely that the file you are trying to attach is too big. If it's over 10MB, many Web mail programs will have a difficult time uploading it to your message. Check with your email provider to find out what the maximum size limit is for sending and receiving messages. If you do not believe your file is too large, you might have trouble uploading your file because your browser is slow or because you have several other programs and applications running concurrently. Try using a different browser, closing all other programs and files, or restarting your computer before you attempt the upload again.

Problem: My inbox has reached its storage capacity.

Solution: Even after you have cleared out all unimportant email from your account, you could still face some



If the email address of your recipient is incorrect, you will receive an email similar to this.

capacity issues. You have the ability to archive all your messages, so you won't risk deleting critical information. If you are using Outlook, go to File and then Select Archive. In the resulting dialog box, you can decide which folder you want to archive, such as your inbox, your Sent folder, or any other folders you have created. Archive File lists where your archived messages will be stored on your hard drive. If you have a specific place you want your email to be stored, click Browse to determine the location. You also have the option to select only items that are older than a specific date. For instance, you can archive all the messages sent and received before Dec. 31, 2007, and only messages sent after that date will remain in your folders.

Problem: I can receive but not send email in my Windows Mail account.

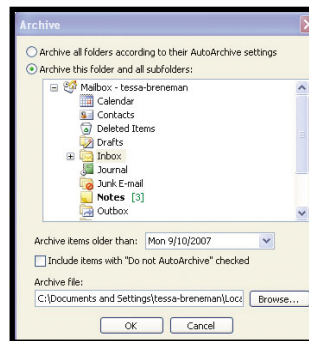
Solution: Your Windows Mail account is having a hard time connecting to the outgoing email server. If you just opened a Windows Mail account and have never been able to send email, it's likely that your email account was incorrectly set up.

To verify that this is the problem, go to the Start menu, select All Programs, and open Windows Mail. Find your email account information given to you by your email service provider. Next, open the Tools menu and click Accounts. Under Mail, find

your email account and then choose Properties. Click the Servers tab and verify the information under Server Information and Incoming Mail Server is the same as the information from your email service provider. Make the appropriate changes if the information does not match and then click OK.

If you found that the information under Server Information and Incoming Mail Server match the information from your email service provider, you will need to correct the Authentication Settings. Check with your email service provider to verify that authentication is needed to send mail. Then, try changing your authentication settings so that you will sign in using your username and password.

To do so, open the Start menu, select All Programs, and then click Windows Mail. Open the Tools menu and then select Accounts. Under Mail, choose your email account and then click Properties. Open the Servers tab and then click My Server Requires Authentication under Outgoing Mail Server. If the account information you use to send mail does not match the information you use to receive email, select Settings and then choose Log On Using. Enter the same username and password you use to send email. ■



If you are using Outlook, you have the ability to archive all your messages, so you won't risk deleting critical information.

BY TESSA WARNER BRENNEMAN



Playing music and videos on your media player is one of the benefits to having a computer. But when your media player isn't working properly, enjoyment can quickly turn into discouragement and aggravation. In this article, we'll try to guide you through some of the most common problems you may encounter with your media player, so you won't have to put off enjoying your music and videos.

Problem: Video on WMP11 (Windows Media Player 11) is choppy or jittery.

Solution: When you are using WMP11 for Windows Vista, occasionally you will find that some of your video is choppy or that the audio and video features are not synchronized. You should first close any programs and windows that you are not using. The more programs that are running simultaneously—especially graphics-intensive programs—the more system resources Windows needs to run them.

Choppy or jittery video could also be because the processor, the video card, or the hard drive does not have adequate resources—or is not fast enough—to play your video properly. First, try defragmenting your hard drive and check the hard drive for errors. (For instructions on how to use Vista's defragmentation utility and how to scan the hard drive for errors, see "How To Solve . . . Problems With Hard Drives" on page 62.)

The problem could be resolved by checking for video card driver updates by visiting the video card manufacturer's Web site. If there are no updates for your video card, you might want to think about upgrading to a newer video card. Finally, your CPU may need to be upgraded because it is not powerful enough to play the video seamlessly and coordinate the audio and video.

Additionally, if you are trying to play the video on a notebook computer that is running off battery power, try it again with your computer running on AC power. The notebook could've been trying to conserve power; therefore, it was running everything a bit slower than usual.

Furthermore, if you are streaming the video over the Internet, you could be experiencing choppiness because your network bandwidth does not have the necessary resources to handle the video you are trying to stream. To resolve this issue, download the video onto your hard drive and try playing the video again. If you are using an 802.11a or 802.11b network, you are likely to have more problems than if you are running a faster wireless network, such as 802.11g.

Problem: The audio is working in WMP11 but not the video.

Solution: If audio is working fine in WMP11, but the video is not working, you may receive a codec error

message. A **codec (compressor/decompressor)** is software or hardware that is used to compress or decompress digital data. An easy way to resolve this problem is to configure WMP11 to download the codecs automatically.

To configure WMP11 to download the codecs automatically, first you need to open the Tools menu and then click Options. Select the Player tab and then click the checkbox for Download Codecs Automatically. Click OK. Play the file and then click Install if you are asked to install the codec.

A codec error could also be responsible for choppy video. Sometimes a third-party codec will cause the video to be choppy. The codec from the third-party source may need to be updated, but you will need to contact the source to determine if that is the problem.

Other codec errors in WMP may generate one or all of the following error messages: Invalid File Format. (Error=8004022F); Cannot Play Back The File. The Format Is Not Supported. (Error=80040265); Cannot Play Back The Video Stream: No Suitable Decompressor Could Be Found. (Error=80040255); No Combination Of Filters Could Be Found To Render The Stream. (Error=80040218); The Source Filter For This File Could Not Be Loaded. (Error=80040241); Cannot Open. Please Verify That The Path And Filename Are Correct And Try Again (Error=8007000D).

If you get one of these error messages, it could be because the file format or the codec of the media file you are trying to play is not supported by WMP11. It could also be because some files are missing or damaged, or because a codec is not installed. Another possible reason for getting these error messages is a lack of an audio device installed on your computer, or the use of a remote Desktop that is not configured to play audio. To verify if WMP supports the type of file you want to play, go to support.microsoft.com/kb/316992. You could also try playing multiple types of formats in order to determine whether that particular file is the only one damaged or corrupted.

There is also the chance that you will need to install the most recent version of Microsoft DirectX, which you can also do by visiting the Microsoft Web site.

Problem: Video is temporarily unresponsive in Vista.

Solution: When you are using WMP11 with Vista, you might find that the video is oftentimes temporarily unresponsive. For instance, you are unable to close WMP or resize the WMP window. Eventually, WMP will respond to you. Large MPEG-2 (Moving Picture Experts Group-2) files generally cause this problem. Unfortunately, the best solution is to just wait for WMP to respond.

Problem: The Full-Screen Mode becomes unresponsive in WMP11.

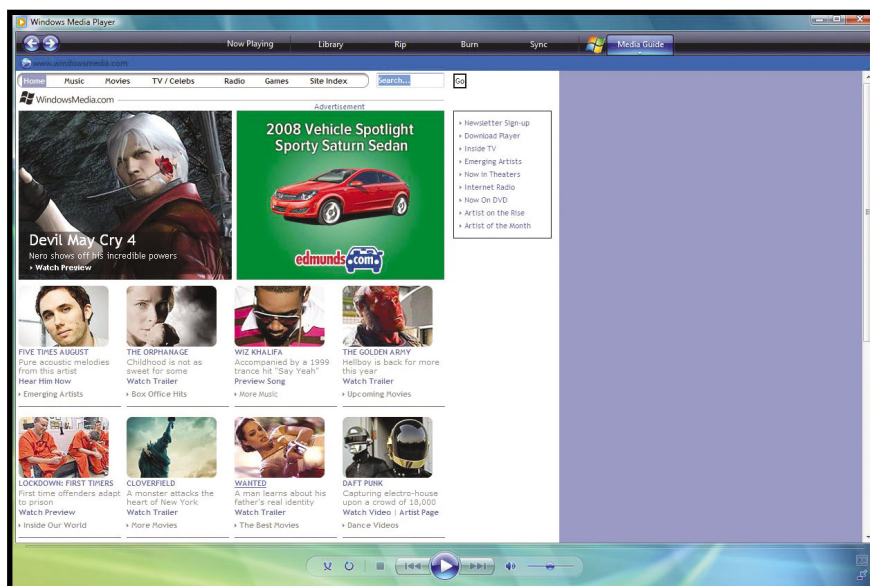
Solution: When you are getting ready to watch a video with WMP11 on your Vista machine, you might find your Full-Screen Mode becomes unresponsive at times, especially if you have the Aero Glass interface disabled. To exit out of Full-Screen Mode, press CTRL-ALT-DELETE.

To prevent this problem from occurring again, you can edit a part of the Windows Registry. (Use caution when modifying the Registry, as one wrong entry can render your system

unbootable. It's always a good idea to back up the Registry before making any changes.)

Open Registry Editor by clicking Start and typing `regedit` in the Start Search field. Go to `HKEY_CURRENT_USER\SOFTWARE\MICROSOFT\MEDIAPLAYER\Preferences`. Right-click Preferences, select New, and choose DWORD Value. Type `DXEM_UpdateFrequency` and

running Windows XP, click Start and then open Run. Type `%userprofile%\Local Settings\Application Data\Microsoft\Media Player` and then click OK. For Vista, click Start and type `%LOCALAPPDATA%\Microsoft\Media Player` in the Start Search box and press ENTER. Highlight all of the files in this folder and then click Delete from the Organize menu (File menu in



When using Windows Media Player 11 with Windows Vista, it's not unusual for the video to come across as choppy.

then press the ENTER key. Go to the Edit menu and choose Modify. Type 2 and then click OK. Close the Registry Editor.

If you are not comfortable working in the Windows Registry, you can instead disable the Show Shadows Under Menu option. To do this, right-click the Desktop, select Personalize, and click Window Color And Appearance. Click Open Classic Appearance Properties For More Color Options and then choose Effects. Clear the Show Shadows Under Menus option and click OK.

Problem: I cannot view, add, or delete items in the WMP11 Library.

Solution: To cure a corrupted library database, first exit WMP11. If you are

WinXP). You do not need to delete the folders you find in the main folder. Finally, restart WMP11.

Problem: I am running into compatibility issues while using Apple QuickTime on a Windows PC.

Solution: Apple suggests that you check to see if your PC meets the system requirements, as listed on Apple's QuickTime support Web site (www.apple.com/support).

Also, be sure you are running the most up-to-date version of DirectX and that you have recent drivers for your sound and video cards. If you are unsure, contact the manufacturers of your sound and video cards to check. ■

BY TESSA WARNER BRENNEMAN

HOW TO SOLVE... PROBLEMS USING CD/DVD DRIVES



Dump it to disc! Recordable CDs and DVDs give you inexpensive ways to archive files, back up home movies, and take your music with you in the car. BDs (Blu-ray Discs) offer much more capacity, but at a higher price and with more limited device compatibility.

On the other hand, a lot can go wrong with optical drives. Virtually all consumer drives accept bare discs instead of cartridge discs (as did some older DVD-RAM models). This means that users handle unprotected media, which often results in dirty, scratched discs that are difficult for drives to read or write to.

In addition, there are a lot of variables in media quality, disc formats, burning software settings, and the types of data and audiovisual content users want to commit to disc. Here's a look at some common problems.

General Troubleshooting

To minimize potential trouble with optical drives, some basic rules apply. Always handle bare discs by their edges. Don't set a disc down on any surface other than a drive tray and keep it in its jewel case or sleeve when you're not using it. If your CD/DVD burning software has available updates or patches, install them.

To address some issues, you'll need to look up your drive's model number. In Windows Vista, press WIN-PAUSE (the Windows logo key and the PAUSE

key) and click Device Manager. In Windows XP, press WIN-PAUSE and then click the Hardware tab and Device Manager. In either OS (operating system), double-click DVD/CD-ROM Drives. Alternatively, you can look at the drive's label, usually found on its top panel. You might need to physically remove the drive from your computer to do so, though.

Here's one example of a problem that would require your drive's model number: If your drive doesn't work properly with a particular brand or speed of disc, there might be a recent firmware update that could add support for it. Go to the manufacturer's site and look up your drive's specific model number in the support section. (Don't try to install firmware intended for another drive model.) To determine your drive's existing firmware version, such as SB00 or 1.01, use the free Nero InfoTool utility (www.nero.com/enu/download-infotools.html). Carefully follow the manufacturer's directions to install the new firmware.

Some of the following solutions also apply to BD and HD DVD (High-Definition DVD) drives, as well. For solutions to other problems not covered in this article, go online. Check the sites of your drive's manufacturer, Microsoft, and/or your burning software's developer, as appropriate.

Problem: A movie or CD skips or freezes, or I get an error message

when I try to access particular files on a disc.

Solution: Assuming other discs work fine, the disc is probably dirty, damaged, or defective. To clean it, spray the nonlabel side with mild window cleaner. Wipe it with a soft cloth in straight lines from the hole to the outer edge, as if you're cleaning the spokes of your car's wheels. Windex Glass and Surface Wipes (www.windex.com) work, too.

Note that cleaning leaves tiny scratches in the disc's surface. Optical drives can ignore scratches that emanate from the center like the rays of the sun, but they have a harder time reading data under scratches that run in other directions.

For severely scratched discs, consider a motorized disc polishing product such as SkipDR AutoMax (\$39.99; www.digitalinnovations.com). Some users have reported great results using Brasso (www.reckittprofessional.com) as a polishing compound; rinse off any residue with warm, soapy water.

Problem: Errors occur during a burn, or a finished disc doesn't work.

Solution: There seem to be a few defective discs in virtually every package, but you can reduce the chance of making your own coasters (useless discs) with a few precautions. Try burning at a slower speed (such as 24X instead of 52X) and try various brands of discs. Also, enable your software's "verify after writing" setting, so if

there is a problem with a disc, you'll know right away.

If you burned a DVD using Vista's drag-and-drop feature at its default settings, you made a disc with a version of Microsoft's Live File System that will only work in Vista computers and some, but not all, WinXP systems. Rewrite the data to another disc, but this time, when the Burn A Disc window appears, click Show Formatting Options and select Mastered. This will make a standard, highly compatible DVD that will work in most PCs and devices.

Virtually all recent drives use Burn-Proof or similar technologies to pause writing operations when the computer can't provide data fast enough, but it's nevertheless a good idea to leave your PC alone during a burn. Avoid security scans, drive indexing, or defragmentation sessions, especially if you're using a single-core processor. And if you're using a laptop, set it on a desk or table and let it be. A good jostle during a data write will give you a coaster.

Finally, try to eliminate vibrations that could throw the drive's laser out of alignment with a spinning disc. Tighten a desktop drive to its drive bay using all four provided screws.

Problem: I added data to a disc with existing files on it, and now the previous data session has disappeared.

Solution: Unless you made sure that the burning software's Continue Multisession setting was enabled, you may not be able to retrieve the older data without a recovery program such as CDRoller (\$34; www.cdroller.com), IsoBuster (\$29.95 with a free version; www.isobuster.com), or Nero RescueAgent, available in Nero 8 Ultra Edition (\$79.99 download; www.nero.com). Some programs, such as Nero

Express, will automatically detect existing data sessions and enable the Continue Multisession setting if you insert the disc before launching them.

Problem: I need to remove a disc from a drive without turning it on.

Solution: Without power, your CD/DVD drive's eject button won't open the disc tray. If your drive fails, your computer won't start, or you simply don't want to connect a bare drive to a PC, you'll have to open the tray manually. Straighten a paper clip and stick one end straight into the tiny, unmarked access hole on the front of the drive near the drive tray. When

is on the middle connector, the jumper should be in the Slave position. If the problem persists, try a fresh IDE cable.

Problem: My IDE drive works, but it's very, very slow compared to similar drives.

Solution: On occasion, a drive can't work in DMA (direct memory access) mode, instead falling back on the much slower PIO (programmed input-output) mode. Even a drive that has been working fine can suddenly drop down to PIO for various reasons.

Press WIN-PAUSE to bring up the System Properties window or right-click Computer (My Computer in WinXP) and select Properties.

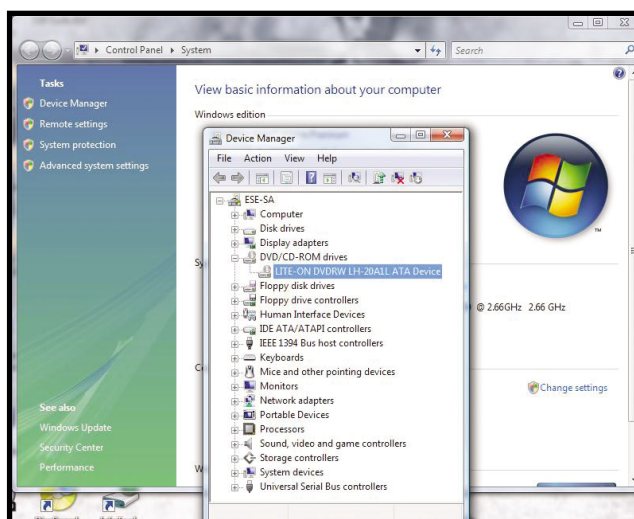
In Vista, click Device Manager and then double-click IDE ATA/ATAPI Controllers and ATA Channel 0. Under the Advanced Settings tab, if a drive is listed under Devices, make sure that its Enable DMA checkbox is selected. Repeat the procedure for devices on ATA Channel 1, as well.

In Windows XP, click the Hardware tab and then click Device Manager. Double-click IDE ATA/ATAPI Controllers and

then double-click Primary IDE Channel. Under the Advanced Settings tab, the Transfer Mode and Current Transfer Mode fields for each drive should both have DMA entries. If not, set the Transfer Mode to DMA If Available. Repeat the process with the Secondary IDE Channel.

You might need to reboot to make the change take effect. Return to the Device Manager settings and make sure that the CD/DVD drive entered DMA mode as it should have. If it didn't, turn off the PC and try a different data cable. ■

BY MARTY SEMS

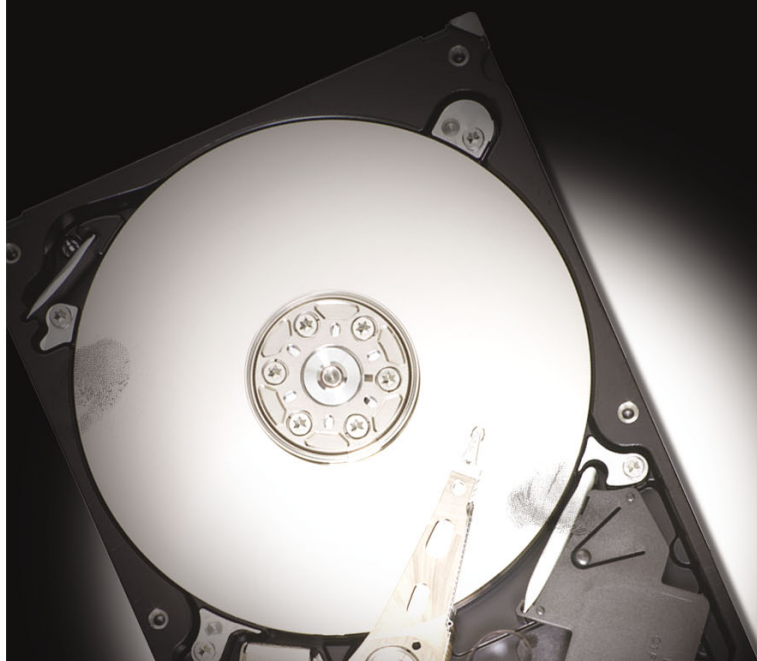


The Device Manager can tell you your CD/DVD drive's model number.

you feel resistance, push firmly. The tray should open enough for you to pull it open with your fingernails.

Problem: An IDE (Integrated Drive Electronics) drive behaves erratically after installation.

Solution: Turn off the PC. Check the jumper settings on the rear of the drive. (Jumpers are small plastic boxes with metal inside; they connect sets of pins to enable or disable device settings.) If the optical drive is attached to the connector on the end of the IDE ribbon cable, its jumper should be in the Master setting per the drive's label or stamped markings. If the drive



HOW TO SOLVE... PROBLEMS WITH HARD DRIVES

Hard drives store a phenomenal amount of data for the money, but if something goes wrong, it can affect your whole computing experience. Here's a primer on keeping your drive in the pink.

General Troubleshooting

Always handle hard drives gently, especially bare 3.5-inch internal desktop drives. Keep drives away from strong magnets, including PC speakers. Never move your desktop computer while it's running. And if your computer case allows you to cool your drive with a fan, do so.

New drive prep. You need to prepare a brand-new internal drive before it can store data. The steps are **initialization** (in Windows, typically this means creating an MBR [master boot record] to allow the OS [operating system] to access the drive); **partitioning** (dividing the drive into one or more virtual sections, each with its own drive letter, such as C:); and **formatting** (writing a file system structure your OS can understand). If a new drive doesn't work, you may have forgotten one of these steps.

You can perform these functions as you install Windows or most other OSes. Alternatively, if you connect the drive to a working Windows Vista PC, you can prepare it using Disk Management (click Start, Control Panel, Administrative Tools, Computer Management, and Disk Management).

Right-click the bare drive's information box—which should read Disk X (where “X” is your drive's letter), along with its capacity—and choose Initialize Disk.

Next, partition and format the drive. Right-click the drive's capacity bar (labeled Unallocated), select New Simple Volume or New Partition, and follow the wizard's prompting to create a primary partition using the entire capacity of the drive. Assign it a drive letter of your choice. Choose the quick format option to save time.

Error scans. To check a drive for errors in Vista, right-click its drive letter and choose Properties. Under the Tools tab, click Check Now, select Automatically Fix File System Errors, and click Start. If Windows finds any problems, it will present you with a report. If there is more than one partition on the drive, repeat the procedure for each partition's drive letter.

If the scan reveals any errors, use Seagate's in-depth SeaTools diagnostic utility (www.seagate.com/www/en-us/support/downloads/seatools). SeaTools can determine whether the error is just a file system problem (and thus correctable) or a physical failure of the drive itself (meaning that it's time to buy a new drive). Follow the instructions to make a bootable CD or diskette with SeaTools and then start your PC with it.

Before you seek technical support, look up your hard drive's model number. Press WIN-PAUSE (the

Windows logo key and the PAUSE key) and click Device Manager. Double-click Disk Drives. Each hard drive should be listed by its model number. This information is also found on the drive's label.

Problem: My hard drive works, but it seems slower than usual.

Solution: As a hard drive fills with data, it tends to break up large files to fill available spaces. Over time, this slows down performance, which a defragmentation utility can restore by reincorporating files into single chunks. In a drive's Properties Window, click Disk Cleanup to get rid of temporary and junk files. Next, click the Tools tab and Defragment Now.

Alternatively, a suddenly slow IDE (Integrated Drive Electronics) drive might have slipped out of DMA (direct memory access) mode. The fix is the same as for CD/DVD drives, so turn back to “How To Solve . . . Problems Using CD/DVD Drives,” on page 60.

Problem: My new IDE hard drive doesn't act quite right.

Solution: This could be a jumper issue, so again, turn back to page 60 for advice. Next, run Disk Cleanup and check for errors as previously described.

Problem: My hard drive often becomes active even when I'm not using my computer.

Solution: Some benign causes of unattended drive activity include a search feature that's indexing the drive's contents, a security update or scan, and automatic defragmentation. Also, if you've set up your computer to host a multiplayer game or files that others can access over a network, expect some traffic.

You often can determine which application is accessing the drive so much. Click Start, type **perfmon** in the Start Search field, and press ENTER. Click the arrow in the Disk section. The entries in the Image column may give you a clue.

Unexplained drive thrashing also could indicate that your system has been infected by malware. Update your security software and run a scan.

Problem: My hard drive is making an unusual noise, such as clacking.

Solution: All drives make some noise, especially when they seek data from various parts of their disk(s) or move their read/write heads onto a protective ramp before shutdown. However, unusual or loud sounds indicate an imminent problem. Back up your data and then run a full SeaTools scan.

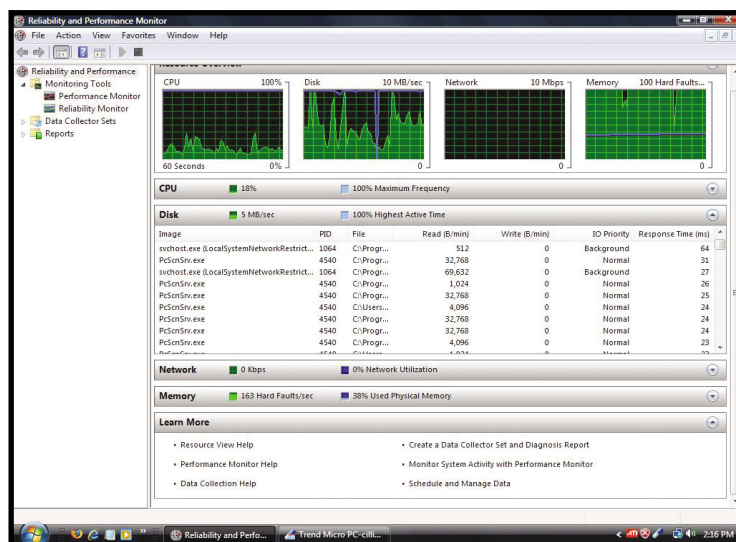
Problem: An error scan turns up file system errors but no physical defects.

Solution: File system errors have various causes, such as improper shutdowns. Fortunately, you should be able to recover most, if not all, of your data and repair the drive.

Back up as much of the data as you can. If the hard drive contains your Windows installation (typically on drive letter C:), you'll need to reinstall Windows, your applications, and your data. During the Windows installation process, choose the option

to delete the C: partition, create a new partition, and format it with NTFS (NT file system). (Simply reformatting the problem partition should correct most file system errors, but repartitioning is more definite.) Some prebuilt PCs come with D: or E: partitions containing OS

one can retrieve any of your personal data from it, even in its dying state. Use a free or inexpensive "shredding" utility to scramble the drive's magnetic domains so that none of your data patterns remains. Otherwise, you may choose to physically destroy the drive.



Vista's Performance Monitor can help you figure out which application is constantly accessing your hard drive.

recovery files, so be careful not to delete these.

If the hard drive isn't the boot device (Windows resides on another drive), your job is easier. In Disk Management, right-click the problem drive—double-check that it's the correct one—and click Delete Volume. If there is more than one partition or virtual drive on the physical hard drive, repeat this step for each. Next, partition and format the drive as directed above and then copy your data back onto the drive.

Problem: An error scan turns up physical problems with the drive.

Solution: Back up the data and either discard the drive or return it under warranty. There's no point in continuing to use a drive that will fail, whether gradually or abruptly.

Before you toss the drive in the trash, however, make sure that no

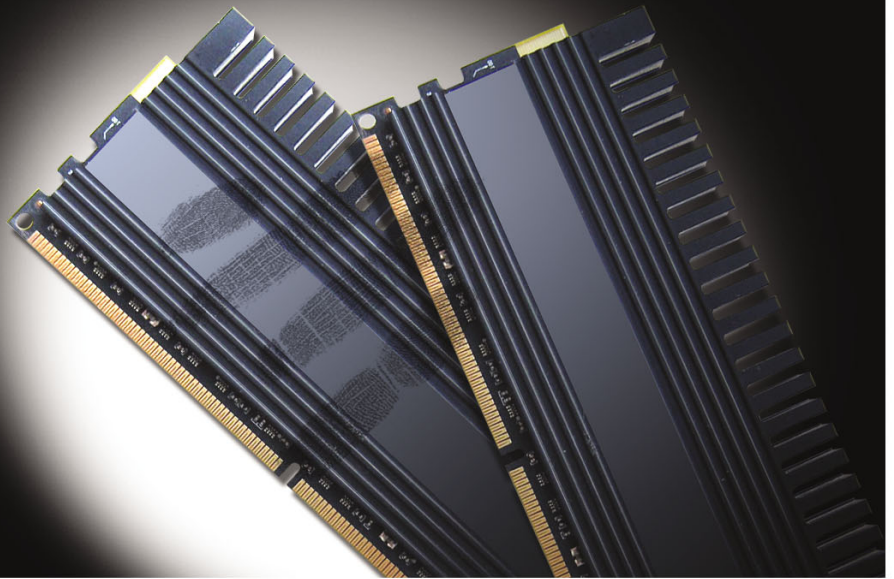
have one.

Hard drive recovery services, such as First Advantage Data Recovery Services (www.datarecovery.net) and DriveSavers (www.drivesavers.com), have the expertise and specialized equipment to extract at least some data from drives that have gone to the great digital footlocker in the sky. In fact, even drives that have been through fire, flood, or hurricane winds often retain some or all of their data, but they require a pro's careful ministrations to coax it out. On the other hand, keep in mind that drive recovery typically costs upward of \$1,000.

For a more detailed look at data recovery services, refer to "I Now Pronounce Your Photos Recovered" on page 17 in the October 2007 issue of *Smart Computing*. ■

BY MARTY SEMS

HOW TO SOLVE... PROBLEMS WITH RAM



Faulty memory displays a variety of symptoms. It may cause your computer to freeze, crash, or display (seemingly) random error messages. RAM is a particularly fragile hardware component. We've encountered more damaged memory (and we've accidentally damaged more memory) in our work here at *Smart Computing* than any other computer part. As a result, we're well-versed in the art of troubleshooting PC memory. We'll show you how to quickly determine whether RAM is causing your PC's problems.

Identify Your Memory

Determining your memory's model number is a little trickier than identifying the model numbers of many other hardware components. Windows' Device Manager, which provides status information (and model numbers) for many internal and external PC components, doesn't display PC memory. To identify your memory, you'll need to either download a third-party program or physically pull the memory from your computer.

If you'd rather not crack open your PC's case, you're in luck: Several software publishers offer memory-identifying programs that run on Windows. We recommend CPUID's PC Wizard 2008 (www.cpubid.com), which is a free program that provides a wealth of information about your computer's parts. To download the software, visit

the Web site and then click PC Wizard in the Software column. Click the PC Wizard link under Download Latest Version and then choose a location on your computer to which to download the installation file.

Next, double-click the downloaded file. Click the Next button when the Setup—PC Wizard 2008 window appears and then follow the installation wizard's steps. Once the installation completes, start the program by double-clicking your Desktop's new PC Wizard 2008 icon. Click the Mainboard icon in the Hardware section and then click Physical Memory in the Mainboard area. At this point, the window's Information tab displays your memory's specifications, including Manufacturer Name and Part Number (the memory's model number). This section displays information for each DIMM (**dual in-line memory module**), a piece of memory that fills one of the motherboard's memory slots.

Problem: My computer is behaving abnormally, and none of the basic troubleshooting I've done has helped. I'm not sure where to start troubleshooting.

Solution: Because bad memory is such a common problem, we recommend that you start by troubleshooting it whenever you're out of ideas about the cause of your PC's problems. Follow these steps to troubleshoot a general RAM problem.

Step 1: Check your memory via System Properties.

If you know your PC's total memory capacity, you can use Windows' System Properties menu to make sure that Windows sees all of your memory DIMMs. For example, if you know that your PC has two 512MB DIMMs, System Properties should display a total of 1,024MB of memory. Instead, if it displays only 512MB of memory, that's a clear indication that your PC has a memory problem.

To check System Properties in Windows Vista, right-click the Computer icon on your Desktop and then click Properties. (If your Desktop doesn't have a Computer icon, click the Start button and then right-click Computer.) This window displays your operating system, your computer's name, your processor's manufacturer and model number, and the amount of memory in your PC. Note that if you have 4GB or more RAM on a PC that runs the 32-bit version of Vista, System Properties will not display all of it, even if your memory is functional. See "How To Solve . . . Problems In Vista" on page 48 to learn more.

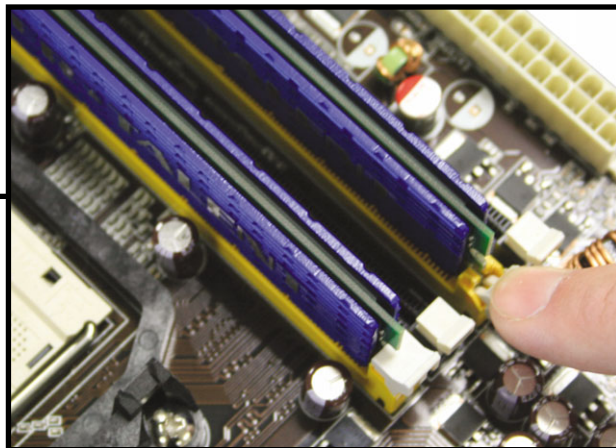
Step 2: Reseat your memory.

If you've recently moved or bumped your PC, the problem might be a loose connection between the memory DIMM's pins and the motherboard's memory socket. Thanks to that faulty connection, your PC will exhibit problems even if the memory is completely

Each memory slot has two clips that hold the memory in place. Pop the clips back and then reseat the memory to make sure it's in securely.

healthy. By reseating the memory (pulling the DIMMs out of the motherboard's memory slots and then popping them back into place), you will either solve the problem or rule out a loose connection as the problem's cause.

To reseat the memory, power off your PC and then unplug the power cord from the power supply. Remove the computer's right side panel (some unusual PC cases open via the left side panel). Touch the side panel or another piece of metal to release any built-up static electricity and then press the two tabs that sit on either side of the DIMM. This will release the memory, at which point you can pull it out of the slot. Next, put the DIMM back into the slot and push either end gently until the clips snap back into place. Finally, press each clip sideways to make sure it's firmly locked onto the DIMM. Restart your computer. If this hasn't solved the problem, try the next step.



Step 3: Remove the RAM.

Many modern computers have at least two memory DIMMs. If your PC has multiple modules, remove all but one of the DIMMs, taking careful note of which slots you pulled the memory from (so you can replace them later). Restart your PC and check to see whether the computer is still exhibiting problems. A problem-free PC with only one DIMM means that one of the other DIMMs is faulty. Power off the computer again and swap out the healthy DIMM with one of the other DIMMs until you encounter the memory that causes problems. Replace the faulty DIMM with new memory.

Problem: Lately, my PC runs very slow when I open multiple programs.

Solution: Buy new memory. You're probably not using the same software you used when you first bought the PC because you installed the latest versions of your favorite programs as developers made them available. Chances are that new software eats up more of your memory than previous versions. When standard RAM fills, temporary data storage duties spill over to a section of the hard drive known as the paging file. The paging

file keeps your PC functioning, but it slows down the PC because the hard drive can't transfer data nearly as quickly as RAM. Open up several of those memory-hogging programs at once, and you're looking at a very slow PC.

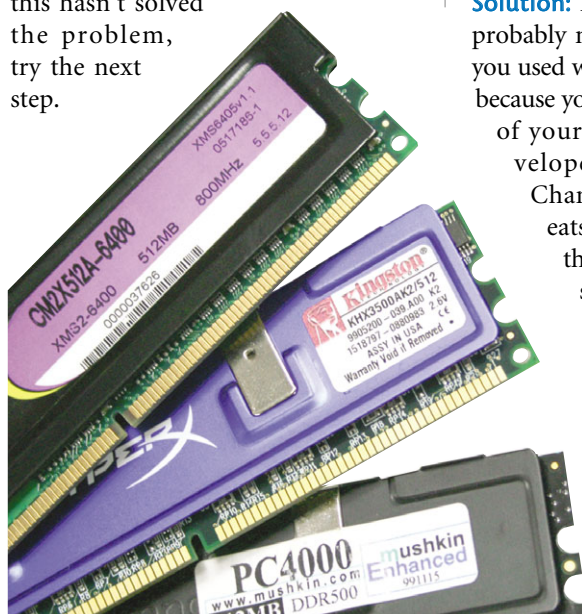
You can solve this problem by buying higher-capacity memory. The more system memory you have, the better you'll be able to run multiple programs simultaneously. All versions of Vista run on as little as 512MB of RAM, but Microsoft recommends that you install at least 1GB to run Vista Home Premium, Vista Business, or Vista Ultimate.

Bygone Memories

Memory doesn't lend itself to home repairs, so if you determine that your PC's RAM is faulty, you'll need to replace it with new memory. To find out which memory you should buy, consult the label of your damaged memory and check the motherboard manual (after all, if someone recently installed the problem memory, the problem's cause might be that the installer put the wrong type of memory on your motherboard).

Some memory manufacturers go out of their way to help customers find the right memory for their PCs. With Kingston's Memory Search feature (www.kingston.com), for example, you can easily find appropriate memory for your system by entering your computer's model number or motherboard model number. To determine the motherboard model number, install PC Wizard 2008 (see our instructions near the beginning of this article) and then click Mainboard. The program displays the motherboard manufacturer and model number in the Description section. ■

BY JOSHUA GULICK



If you need to know your RAM's manufacturer and model number, you can find out by pulling the memory out of your computer. Each piece has a label that provides basic information about the memory.



Troubleshooting a blank, flickering, off-color, or otherwise unreadable display can be tedious because there are generally no error messages that point to the true nature of your problem. Luckily, you can often pinpoint the cause by checking the video connections on your monitor and graphics card or by making some quick adjustments to the visual settings on your computer or monitor. In this article, we'll guide you step-by-step through a few of the most common video issues.

Gather Information

Before you start the troubleshooting process, locate the make and model of your monitor and graphics card. It's likely that other users have experienced similar problems, and you can visit the Support section of the manufacturer's Web site or enter the problem and model number into a Google search (www.google.com) to look for a helpful solution. Knowing the model of your graphics card is particularly helpful if you need to download the most up-to-date driver or specify the problem hardware to a tech support agent.

If your display is functional, it's easiest to identify your graphics card from the Device Manager in Windows. In Windows Vista, click Start, select Control Panel, double-click System, and click Device Manager under Tasks. Once Device Manager is open, click the plus (+) sign next to Display Adapters

and double-click the listed graphics card. The General tab will list the manufacturer and model number.

If your display is nonfunctional, reference the documentation included with your PC or graphics card to find the model number. Also locate the documentation that came with your monitor. If you don't have any monitor documentation, reference the rating label on the back of the monitor to find its model number.

Problem: The monitor displays no video at all.

Solution 1: First, make certain your computer and monitor are plugged in to a functioning power source. If you don't see or hear any indications of power (such as a lit LED [light-emitting diode] or noise coming from the computer's fans), check that the power cords from the computer and monitor are firmly connected to the power source. Next, press the Power button to ensure the monitor is on. If your monitor lets you switch display modes, such as between analog and digital or multiple inputs, toggle between the options

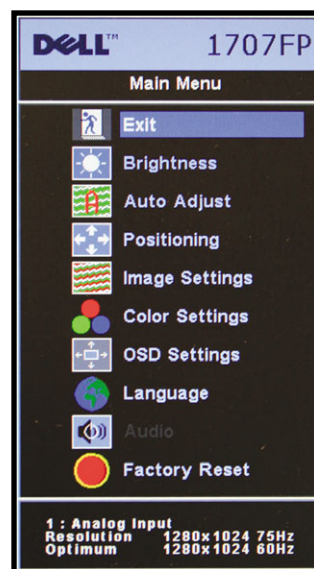
via the OSD (on-screen display) controls on the bezel to see if the monitor was in an incompatible display mode.

Solution 2: Look behind your computer and monitor to see if the video cable is connected to video output on the computer and the video input on the monitor. Gently wiggle the cord to see if the plugs are securely

connected. If both ends of the cable are tightly attached, turn the computer off and remove the video cable. Inspect the cable for any exposed wires and examine the plug for any bent pins that may interfere with the video signal. If the cable appears faulty, try a different video cable. Otherwise, reinsert the video cable and tighten the screws on the plugs to ensure a solid connection.

Solution 3: If you have a spare monitor, connect it to see if the computer is capable of displaying video. If

the second monitor works, your original monitor may be faulty, but if the second monitor doesn't work, the graphics card may be to blame. It's possible that while moving the computer, the video card became unseated from



From the OSD (on-screen display), you can make many changes to the visual properties of your monitor.

the motherboard, so you'll need to open the case and reseat the graphics card. Before you touch any internal components, ground yourself (purchase an antistatic wrist strap or touch a metal, nonpainted portion of the case) to avoid shorting out the internal hardware with the static electricity in your body. Unscrew the metal plate that secures the card to the case and pull the card out of the slot. Next, line up the card directly over the appropriate slot and firmly insert the card. Secure the metal plate to the computer's chassis, close the case, reattach the cables, and restart the computer.

Problem: The images on the display are too light or too dark.

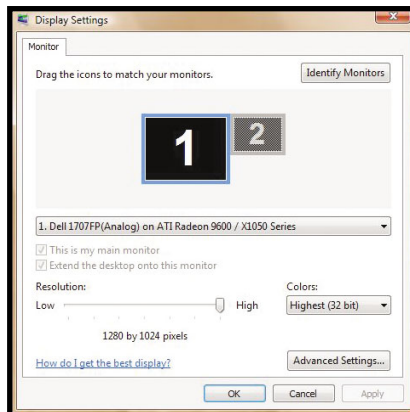
Solution 1: Some monitors feature Brightness or Contrast dials that can be accidentally changed while moving or cleaning the monitor. Fortunately, most monitors feature a Default Settings or Factory Reset function you can use to restore the display settings, but you can also readjust the Contrast and Brightness settings to reconfigure the display. Many monitors feature an OSD to let you adjust the visual properties through a menu system with sliders for each adjustable option.

Solution 2: LCDs use a backlight to produce a wall of light behind the screen, and over time, the backlight can fade, resulting in a very dim display. If you've cranked the Brightness and Contrast controls and the screen still seems dark, you may need to take the monitor to a technician for repairs. Furthermore, the bulbs used in the backlight assembly should last for at least five years of regular use, but they will not last forever. If the backlight assembly has failed, you may need to consider purchasing a new display.

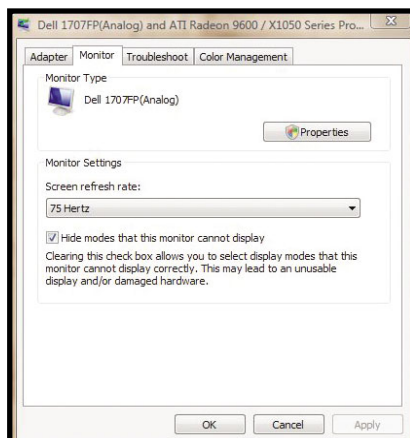
Problem: The image on the screen does not match the screen size.

Solution 1: When selecting the video resolution in Windows, it's sometimes possible to choose a resolution that's not compatible with your LCD or

CRT (cathode-ray tube) monitor. For instance, if you select the 1,280 x 1,024 resolution and the monitor can only handle a resolution of 1,024 x 768, the display may only show part of your Desktop—requiring you to move your mouse to view other portions of the Desktop. Check the monitor's documentation to see the maximum reso-



From Display Settings in Windows Vista, you can choose the screen resolution that best matches your monitor.



Adjusting the Screen Refresh Rate to a higher setting reduces or eliminates monitor flicker, which can make your eyes sore or give you a headache.

lution you can use. To change the resolution in Vista, right-click an open area of your Desktop, select Personalize, and click Display Settings.

Solution 2: If your Desktop appears to be slightly too wide, stretched, or doesn't cover the entire screen, use the

monitor's OSD to fine-tune the horizontal and vertical alignment. A few minor adjustments should make your Desktop match the size of your display.

Problem: The monitor's display flickers.

Solution: Generally, flicker is caused by slow monitor refresh rate, which is the number of times per second the monitor redraws the screen. To reduce flicker on your monitor, try to increase the refresh rate in Windows. In Vista, right-click the Desktop, select Personalize, and choose Display Settings. Click the Advanced Settings button, click the Monitor tab, and select the refresh rate that's listed as optimal in the monitor's manual. With an LCD, you may also need to turn off the vertical sync (a method of synchronizing the images on-screen that can bog down the refresh rate of the LCD) through the included utility program for your video card.

Problem: Occasionally, video cuts out or the colors on the monitor shift.

Solution: A loose cable can cause a number of problems, and the problems are likely to occur when you move cords behind the computer or bump the PC. If you're experiencing sudden, brief color shifts or video dropouts, firmly reconnect both ends of the video cable. If the cable seems secure, try a different video cable to see if your original cable is faulty.

Problem: My LCD is blurry.

Solution: LCDs look best in their native resolution, which is the physical number of horizontal and vertical pixels that make up the screen. If you set the screen resolution below the native resolution of the LCD, text and images on the monitor may appear out of focus. To change the resolution in Vista, open the Display Settings dialog box as previously described. Move the resolution slider to match the native resolution of the monitor, which should be listed in the monitor's documentation. ■

BY NATHAN LAKE

HOW TO SOLVE...

AUDIO PROBLEMS



You've just finished setting up your new PC, complete with a killer sound card and 5.1 surround speakers. Eager to watch a movie, listen to some music, or play a video game, you boot up your system. Unfortunately, your speakers emit no sound, and you can hear the crickets chirping outside instead of Frank Sinatra's voice or Master Chief's machine gun. It's time to troubleshoot.

While audio issues are bothersome indeed, there are many simple fixes for the myriad problems you may face when trying to get audio to work on your computer.

General Troubleshooting

Whenever you're having trouble getting sound from your PC, there is a checklist you can go through before you try anything else. (Note that in this article, any time we ask you to perform tasks in Windows Vista's Control Panel, we assume it is in categorized view mode, which you can enter by opening the Control Panel and clicking Control Panel Home on the left.)

First, make sure you have a sound card. Most PCs come with integrated sound cards, but you can buy a third-party card for increased audio performance and connectivity. To check whether you have a sound card, click Start, Control Panel, and then click Hardware And Sound. Click Manage Audio Devices under the Sound

heading. When the window appears, click the Playback tab. If you have a sound card, it will be listed here.

Make sure the sound is not muted and that the volume is turned up to a reasonable level. While in the same area of the Control Panel, click Adjust System Volume under Sound. When the Volume Mixer window appears, be sure nothing is muted and adjust volume levels as needed.

Make sure your speakers are connected to a power source and turned on. Check that the volume on the speakers is turned up and that they are not muted and be sure that the speakers are plugged into the computer. If you're trying to get sound through your headphones, make sure they're plugged in; if you have external speakers, you may need to plug the headphones directly into the speakers instead of into the computer. Finally, check all cables and connections to be sure that they are plugged into the correct ports and that nothing is loose or frayed.

Once you've crossed any of these possible culprits off the list, refer below for help on specific audio problems.

Problem: I can't hear any sound from my computer.

Solution 1: Check to be sure that the drivers for your audio card are properly installed. Click Start, Control Panel, Hardware And Sound, and Device Manager. Click the plus (+)

sign next to Sound, Video, And Game Controllers to locate your sound card. If there is a question mark or exclamation point next to the sound card's icon, reinstall the sound card's drivers.

Solution 2: If the sound card itself isn't the problem, try switching it to a different PCI (Peripheral Component Interconnect) slot on the motherboard. Be sure to uninstall the sound card's drivers before you move it. Navigate to Device Manager in the Control Panel. Open it and expand the Sound, Video, And Game Controllers entry. Double-click the sound card. When the dialog box appears, click the Driver tab. Click Uninstall, select Delete The Driver Software For This Device in the resulting window, and click OK. If the problem is rectified by this action, the cause was likely a bad PCI slot or bus.

Problem: The sound from my speakers has hissing, crackling, or distortion.

Solution 1: Mute any unused in/out ports on your sound card; active ports can potentially cause noise. Navigate to the Hardware And Sound area of the Control Panel and click Sound. Click the Playback tab, select the sound card, and click Properties. Select the Levels tab and mute any unused ports.

Solution 2: Check the volume settings on your computer by clicking Adjust System Volume under Sound in the Control Panel. Make sure the volume

for your speakers is below approximately 75%; when this level is too high, unwanted noise is often produced. If you want more sound, rely on the volume control on the speakers themselves.

Solution 3: There are a lot of EMF (electromagnetic field) emissions from components inside a computer case. EMF interference can also be caused by any number of nearby devices, including cell phones and televisions. If you've recently placed any electronic device near your computer, it may be the cause of the unwanted noise.

If removing nearby electronic appliances has no effect, try distancing the sound card from noise-causing devices, such as the hard drive and power supply, by moving it to a different slot on the motherboard. Before moving the sound card, uninstall the drivers as previously directed.

Problem: I can't get my microphone to work.

Solution 1: Make sure the microphone is connected properly to the

computer. If it has an on/off switch, turn it on. Next, ensure the microphone is enabled and that the volume is turned up. Click Sound in the Control Panel. Click the Recording tab and locate the Microphone icon. If it has a green check mark next to it, it is working. If not, click Microphone and then click the Set Default button.

Click Properties to open the Microphone Properties window. Under the General tab, be sure that Use This Device (Enable) is selected under Device Usage. Click the Levels tab and turn up the volume of the microphone to no more than approximately 75%. Click OK to close the window.

Solution 2: Make sure the volume is turned up and the port isn't muted. In the Sound window, click the Playback tab, select the sound card, and click Properties. Click the Levels tab and unmute the Microphone entry if necessary by clicking the speaker icon to the right of the volume level and then turn up the volume slider to 70 or 75.

Problem: I have 5.1 surround speakers, but I can only get 2.1 sound.

Solution 1: Be sure the speaker settings on your computer are set to 5.1. Click Sound in the Control Panel as previously described. Under the Playback tab, click the sound card icon and then click Configure. Choose the 5.1 speaker setup option and adjust the settings as desired. (If there is no option for a 5.1 setup, your sound card may not support it.)

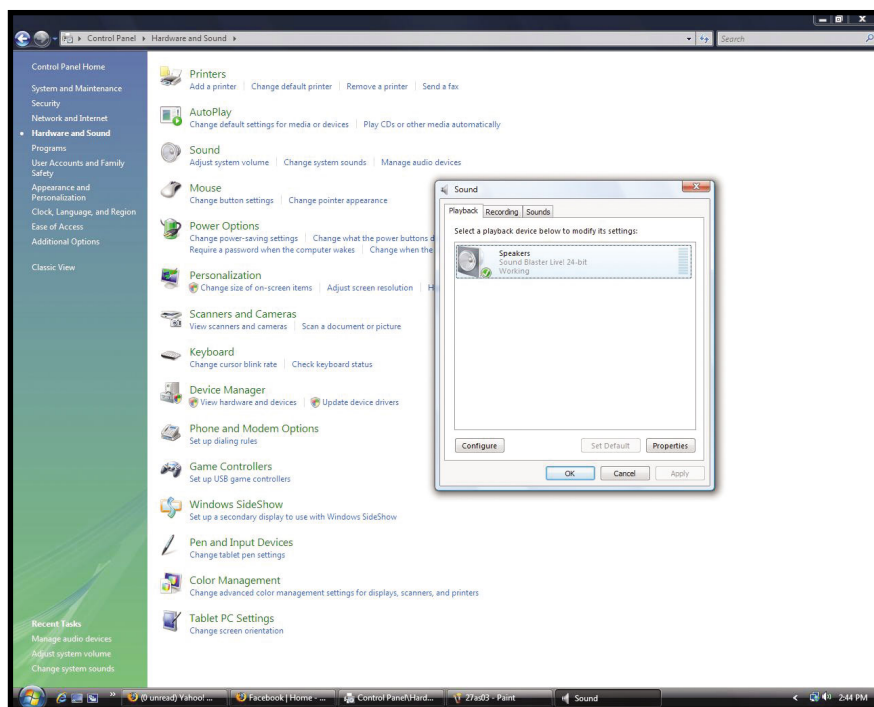
Note that not all audio makes use of 5.1 channels; for example, most music is mixed in 2.1. To test your surround sound, try audio that does use all five channels, such as a video game or a movie with lots of explosions or crowd noise.

Problem: When I play video games on my computer, the audio "burps" and "hiccups."

Solution 1: The graphics card may be creating the problem. Be sure you have the latest driver updates for your graphics card.

Solution 2: Optimize the amount of RAM you have on your computer. Running multiple programs simultaneously eats up RAM, which can make your computer run slowly or create performance problems. Close any nonessential programs, such as a media player or your Web browser, when you're gaming or watching movies. Also, performing simple computer maintenance consistently, such as physically cleaning fan intakes and defragmenting your hard drive, will contribute to the overall efficiency of your computer.

If the problem persists, you may need to increase the amount of RAM on your computer by purchasing memory sticks with greater capacity than the ones you currently have. For more information about identifying and replacing your PC's memory, see "How To Solve . . . Problems With RAM" on page 64. ■



Always check to be sure your sound card is working properly before you try any fixes.

BY SETH COLANER

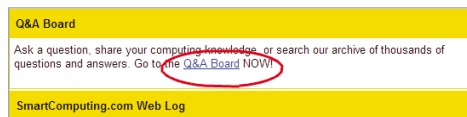
Q&A Board

Computers are great when they're running properly. But when you have a computing problem, finding answers can be frustrating. So if you're having trouble with Windows XP or can't find a solution to a computing question or problem, consult the *Smart Computing* Q&A Board. This subscriber-only feature is a great resource for getting quick and helpful responses to your computing problems.

Before posting a question on the Q&A Board, be sure to check out the Tech Support Center and all of its extensive resources including an error message search, Solutions Knowledgebase, and troubleshooting articles.

It may also be helpful to utilize the Q&A Board search at the bottom of the page, because most likely, someone has had the same tech woes that you are experiencing. You can search by message number or keyword (Windows XP, for example) and sort your results by relevance or a specific date range to make finding answers quick and easy.

1. Log on to SmartComputing.com and click the Q&A Board link.
2. To ask your question, click the Post A Question link in the upper right of the page. (Make sure you are logged in to the site.)
3. Use the Subscribe To This Message link at the bottom of the question to be notified via email when answers are posted.



Renaissance

March 6 is Renaissance artist Michelangelo's birthday, and in 1992, it was also a date many computer users dreaded. Major news sources projected that a recently discovered computer virus of the same name (set to begin harming infected PCs in 1992 on the artist's birthday) would affect millions of PCs. The damage was much less widespread than predicted, but the event marked the first time a virus received major media coverage.



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SmartComputing.com Fun Site Of The Day From December 23, 2007

Rentometer

Writing a monthly rent check is no fun, especially when you think you might be paying more than your neighbors. To find out how your rent compares to others in your area, check out Rentometer. With this device, you just plug in your location, how much you pay for rent, the number of bedrooms you have, and the number of units in your building, and you'll get an estimate of whether you are in the same price range as those around you. It's also handy to use if you are looking to upgrade with a new job or downsize to save money.



www.rentometer.com

Upcoming Issues

You don't have to wait until the next issue of *Smart Computing* arrives in the mail to see what we'll be covering in the next issue. Just click the Upcoming Issue link on our home page to see what we (and our sister publications) have in store.



Browsers

Organize Bookmarks In Safari

The Windows version of Safari, Apple's formerly Mac-only browser, continues to adapt to its new home with bug fixes and tweaks. While it's no browser revolution, Safari makes an intuitive alternative to Internet Explorer, especially for users familiar with Apple software, such as iTunes.

Like any good browser, Safari keeps track of favorite Web sites in the form of bookmarks. Safari handles bookmarks a bit differently, and you might think better than some other browsers. Try it free at www.apple.com/safari and see for yourself.

Import & Export

Your copy of Safari likely already sports a few folders' worth of bookmarks. Apple includes some popular sites to get you started, and the program also automatically imports the bookmarks it finds in other browsers installed on your system. These appear as folders with names such as Import-

ed IE Favorites. If you want to reim-

port an updated set of

bookmarks or import bookmarks from another source, click the File menu and choose Import Bookmarks. Browse to the file that holds the bookmarks.

Depending on the program that created the bookmark file, it probably has an .HTM or .HTML extension. If you're not sure how to export bookmarks from another browser, check that browser's Help files. To export bookmarks in Safari, click File and choose Export Bookmarks. Browse to the location where you want to store the bookmark file and click Save. Safari creates a new file with an .HTML extension in the spot you've chosen. You can then import that file into another browser. If you open the file directly, you'll see a Web page with all of your bookmarks visible as hyperlinks.

Organize

To view and arrange your bookmarks, click the button with the open book icon on the far left of the main window's bookmarks toolbar. A column

appears on the left side of the browser window with two parts: Collections and Bookmarks.

If you're just starting out with Safari, most of the default bookmarks can be found in the Bookmarks Bar collection. These bookmarks show up on the bookmarks toolbar at the top of the browser screen, and it's the best place to put frequently visited pages.

By default, the Bookmarks Bar collection includes two folders: News and Popular. You can click the arrow next to these folders to see the bookmarks inside. Bookmarks can be dragged from one folder to another. To create a new folder, click the Bookmarks menu and choose Add Bookmark Folder. A new untitled folder appears within whatever folder you're currently viewing.

Next to each folder that contains items in the Bookmarks Bar collection, you'll see a checkbox in a column called Auto-Click. This setting determines exactly what happens when you click the folder name as it appears in the Bookmarks Bar in the main Safari window. When Auto-Click is not selected, the folder behaves much like any other folder: Click it and you'll see a list of the bookmarks inside. You can then click the bookmark corresponding to the page you want to see.

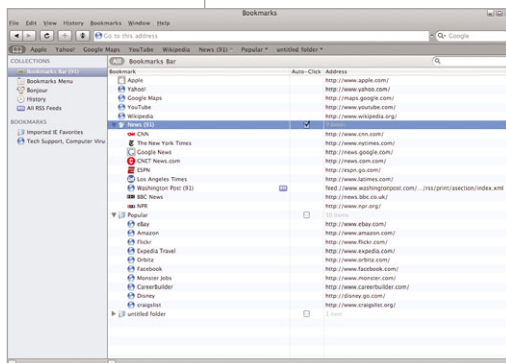
When Auto-Click is selected, clicking that folder on the bookmarks toolbar automatically opens all of the bookmarks within simultaneously. You'll see a bunch of tabs open, each loading up one of the pages listed inside that folder. This is a good option for a collection of pages you read every day.

Pick & Choose

Safari does not display all bookmarks on the main browser menu bar. Only bookmarks stored in the Bookmarks Menu collection will appear on that menu bar. Bookmarks not stored in a collection, such as Bookmarks Bar or the Bookmarks Menu, can only be found in the bookmarks side panel when you click the Bookmarks button.

The Safari way of doing things is logical enough once you know what's going on. For quick access to a particular bookmark, move it to the bar or menu. Less-frequently used bookmarks can be left in the main bookmark repository. Either way, your favorite sites remain close at hand. ■

BY ALAN PHELPS



Apple likens Safari's bookmarks interface to how iTunes works. The idea is the same: Click a collection on the left side of the screen, and the bookmarks appear on the right.

Roxio PhotoSuite 8

All About Albums

Quick Studies
How-To

Image Processing

Beginner

8 for Win2000/XP

In our previous PhotoSuite article, we covered how to use the Media Manager to search for those files you know are somewhere on your computer that you just can't locate. While Media Manager's Smart Views can help, wouldn't it be nice if the files were organized in the first place? The Media Manager's Album component lets you organize your digital photos just as you would your printed ones.

Start From Scratch

Open Media Manager by going to your program folders and selecting Roxio PhotoSuite 8, Organize, and Media Manager. Click the Albums icon in the taskbar along the top and select New Album. This action opens the My Albums tab in the left pane, with an album called New Album in the list of My Albums. You can enter whatever name you wish for the album.

With the new album highlighted in the left pane, click the Add To Album icon in the My Albums tab (it's the second icon from the left) to bring up the Add To Albums window. Browse the list of folders and files on your hard drive. When you select a folder that contains media files, thumbnails of the files appear in the window's right pane. Select the thumbnails you'd like to add to the album and then click Add.

browse each folder on your drive, but it's much easier to use Media Manager's search function.

Make sure the My Media tab is selected and click the More button at the top of the right pane. Enter or choose the desired criteria and click Search. Your filtered files appear in the right pane.

Click the Save As New Album button at the top of the Search Pane. In the Save As New Album dialog box, enter the name for the album, choose a location, and click Save.

If you later add files to your computer that meet the search criteria in the above step, those files will not be added to the album. To add files to an existing album, open the Media Manager's Folders tab and browse your hard drive. When you locate files to place into this album, select the files, click the Albums icon in the taskbar, and choose Add Selection To Album. In the Browse Album dialog box, highlight the desired album and click OK.

Drag From Windows Explorer

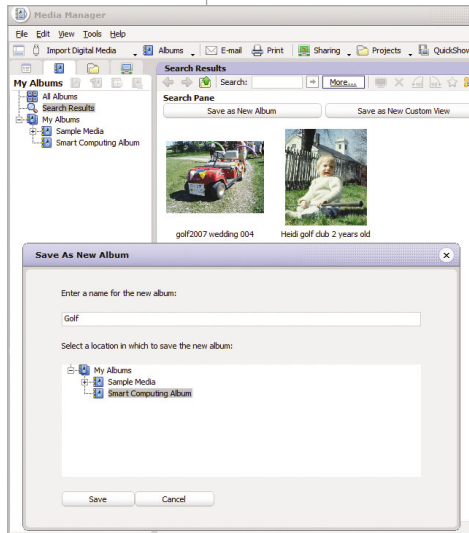
If you're comfortable working with Windows Explorer, you might prefer to use the following method for creating and stocking albums with photos. Open Windows Explorer (in Windows XP, go to Start, All Programs, Accessories, Windows Explorer) and browse for photos.

In Media Manager, click the Split View icon at the far left of the taskbar. In the lower-left pane, select either All Albums or My Albums. Drag the image files from Windows Explorer to this lower-left pane. If you drop them onto an existing album, the file will be added to that album. If you drop them elsewhere in this pane, however, you will be prompted to create a new album. In that case, in the Create New Album dialog box, enter the name of the new album and click Yes.

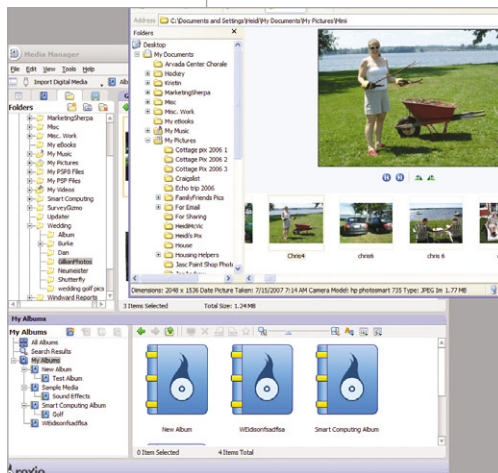
Clean Up Your Albums

To remove files from albums, open the album, right-click the item, choose Remove, and click Yes. Lastly, keep in mind that albums do not help you organize your hard drive. When you remove a file from an album, you are not removing it from your PC unless you select the Permanently Delete The Selected Media File(s) checkbox. ■

BY HEIDI V. ANDERSON



Use Media Manager's search function to create photo albums.



You can drag and drop files from Windows Explorer into Media Manager albums.

Use "Searched" Photos

The above process works fine, but what if your images are so disorganized that it's difficult to browse for them in the first place? You could

PowerPoint 2007

Quick Studies
Problem-Solver

Fixing Boring Shapes

Presentation

Beginner

2007 for
Windows
XP/Vista

To a large extent, looking good in PowerPoint comes down to making nice-looking rectangles, not to mention nice-looking circles, squares, trapezoids, and thought bubbles. Shapes take up enough real estate in many presentations that they set much of the visual tone. And if all your shapes are flat and predictable, well, that's how audiences may think of you, too.

PowerPoint 2007's tools can ensure you never look that way. The program's latest version has enough artistic features to design graphics that would fit in on "Entertainment Tonight." Your quarterly sales update may not require quite that much fanfare, but when you're tired of dull shapes, use the following tips to give them some life.

To get started, click the Insert tab's Shapes button and select a shape from the huge gallery that appears. After you choose a shape, click anywhere

shape to another standard shape, but even cooler is the Convert To Freeform option. It turns an ordinary circle, for example, into a shape with several handles you can drag to create a custom shape. Click Edit Points to start dragging the shape into a form like something from a Salvador Dalí painting. (You might make mistakes while using this, so don't forget your old friend Undo, which you can summon by pressing CTRL-Z.)

PowerPoint has always let you change the colors of shapes, but PowerPoint 2007's Shape Fill feature offers a few twists that make it easier to create attractive slides. One common challenge with coloring shapes is that, unless you're a professional designer, it can be tough choosing colors that add variety while still coordinating. The Theme Colors under Shape Fill address this problem by offering colors within families. Stick to the shades in a single column throughout your presentation, and you'll be safe. The Shape Outline button offers similar controls, while also letting you change the thickness and style of the line around the shape.

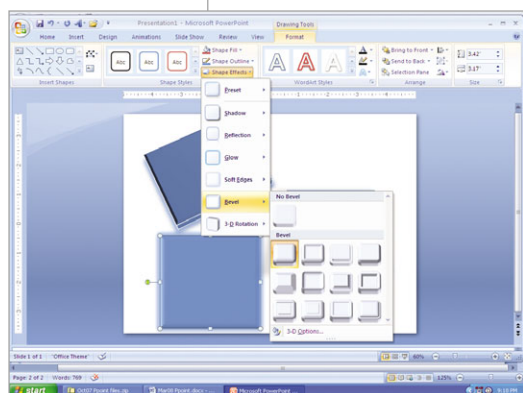
If you'd like some off-the-shelf choices for all the details above, browse the gallery of visual styles found just to the left of the Shape Fill and Shape Outline buttons. The options here add color, outline, gradient, and more with a single click.

Under the Shape Effects button, you really see some of the new tricks in the latest version of PowerPoint. Tools here let you add reflections, bevels, soft edges, and glows that produce a slicker look than was possible in previous PowerPoints. Mastering these toys will quickly make you look better than most of your on-stage rivals.

Line 'Em Up

The right end of the Drawing Tools tab has one more button that's a real problem-solver: the Align button. It lets you instantly line up a group of selected objects. That's a huge help if you're doing something like trying to manually line up the bottom edge of several bars in a chart. It's also extremely handy for jobs like evenly spacing several photos across a slide. To use the Align tools, hold down the CTRL key while clicking each object you want to work with. Then choose the appropriate function under the Align button. ■

BY TREVOR MEERS



Basic shapes find many new faces with the customization features available on the Drawing Tools tab.

on a slide to insert the shape.

Now it's time to customize. The easiest adjustment is the shape's size; just drag one of the handles around the shape. Click and drag the little round antenna atop the shape to rotate it. You'll probably notice that clicking a shape produces a new Drawing Tools tab above the Format tab on the Ribbon. This is part of PowerPoint 2007's contextual interface, which presents specialized tools that relate to whatever you're working on. To quickly rotate the shape 90 degrees in either direction (or completely flip it), use the Rotate button toward the right end of the Drawing Tools tab.

Color Your World

Once you're on the Drawing Tools tab, it's really time to get creative. This tab has everything you need to turn a shape that looks like an art project into a professional-looking graphic.

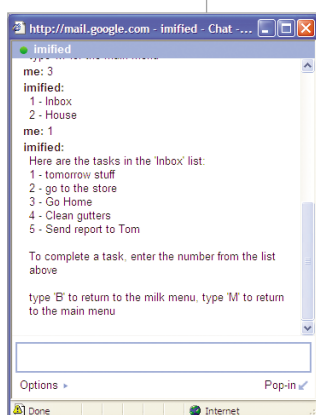
One of the grooviest tools is the Edit Shape button, which sits on the left end of the Drawing Tools tab and is marked with a shape with several dots on it. Clicking it lets you change the selected

Online

Make IMified Your New Buddy

IMified

Intermediate



IMified provides a menu-driven way to access a number of popular online productivity tools. If you usually have a chat window open anyway, IMified may save you a lot of trips through the Web.

If you typically keep a chat client always open and ready, you will probably appreciate IMified (www.imified.com), an instant messaging-based service that lets you command a variety of Web sites through text.

IMified doesn't provide the full functionality of the sites it can access, but that's not the point. Sometimes you might want to add a quick to-do or appointment to your calendar, log a bookmark, post a brief blog entry, or perform any number of short tasks that themselves would take less time than loading up the necessary Web site. If your IM (instant message) window is already open, however, a bit of typing can get that job out of the way and let you move on to other work.

Reading The Menu

IMified is free and easy to try. Registering for the service could not be simpler. Just fire up your IM program of choice (IMified is compatible with AIM, MSN, Google Talk, and Jabber, among others) and then add "imified@imified.com" to your buddy list. (In AIM, just use "imified" rather than the whole email address.) Send IMified a test message, and the system will respond with a notification that your account has been created. There's no login name to keep track of and no software to download.

Whenever you want to use IMified, just start a chat with the IMified contact and send the letter M to receive the main menu. IMified responds with a list of options that you choose by typing the item number. The default main menu includes four options: IMified Notes, Reminders, Todos, and My Account. Notes, Reminders, and Todos are three basic IMified widgets included with every account. They don't do a whole lot, but they can be helpful in a pinch.

For example, type 1 and IMified responds with the Notes submenu. From there you can add a note or view notes. Choose the first option, and you'll be prompted to type a note. Request to view notes, and IMified will reply with all of the notes you've typed so far. It's not much, but it gives you a place to jot down a quick idea, phone number, or the like.

Reminders is a similar sort of stripped-down service that gets the job done without fanfare.

IMified asks you what you should be reminded about and when. You can choose a specific date and time or a relative time, such as "in 30 minutes." The service then sends the reminder to your chat program at the chosen time. The Todo option works in much the same way.

Custom Commands

IMified gets more interesting when you start adding what the site calls widgets to access third-party Web sites. To see the available widgets, type 4 (the My Account option) from the IMified main menu. The site sends back a hyperlink that, when clicked, loads up your settings in a browser window. The main account page lists the various widgets along with short descriptions. In the upper-right corner of the screen, you'll see your current IMified main menu. To add a new widget to that menu, click the plus (+) sign next to the service you'd like to try. You may need to enter a user ID and password so IMified can access your data.

You may not already have accounts with many of the sites that can link to IMified, but the fact that they are accessible through your chat client might be reason enough to check them out. For example, if you like the idea of keeping a task list through chat but aren't terribly impressed with the simple IMified Todos, try adding the Remember The Milk widget. Remember The Milk (www.rememberthemilk.com) is a full-featured task list manager that provides more options than most people probably ever need. You won't be able to reach all of those options through the IMified version of the service, but you will be able to add tasks, mark tasks as completed, and view Todos from different lists set up at the main site.

IMified can also interact with Basecamp and Backpack, two well-regarded online productivity tools. Other widgets include tools to post blog entries, keep up with friends through services such as Twitter, and work with social bookmark sites.

The command-line style interface of IMified is not for everyone. It reminded us of the old Gopher menu-driven Internet tool of yore, which, obviously, was eventually overtaken by graphical point-and-click browsers. Sometimes, though, simple can be better. ■

BY ALAN PHELPS

Microsoft Word 2007

Quick Studies
How-To

Use Styles For Consistency, Appearance Part II

Word Processing

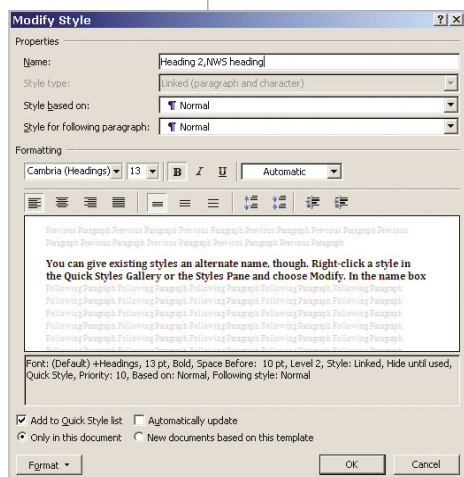
Intermediate

Version 12 for
WinXP/Vista

Last month, we provided an introduction to styles in Microsoft Word 2007. We looked at the built-in styles in Word and how to add or remove styles from the Quick Styles Gallery on the Home tab of the Ribbon. In this column, we will show you the two main ways to create styles and how to modify existing ones.

You should think about what kinds of styles you will create and how you are going to use them so you can come up with a consistent naming scheme. Word doesn't let you change the names of built-in styles, but you *can* give them alternate names. Right-click a style in the Quick Styles Gallery or the Styles Pane and choose Modify.

In the Name box, type the alternate name. Click OK and the style will show up in the Style Pane with both the original and new name and in the Quick Style Gallery with the alternate name.



You can add an alternate name to a built-in style in the Modify Style dialog box.

New Style From Example

You may have an existing document that contains text that is formatted in a way you would like to keep as a style. Or you can format text in a document specifically for the purpose

of basing a style on it. If the existing document was created with an earlier version of Word, convert it to Word 2007 (.DOCX) format first by clicking the Office button, hovering over Save As, clicking Word Document, and typing a new name.

There are several ways to use formatted text to create a style. Select the text from which you want to create a style. You will need to select an entire paragraph if you are going to create a paragraph style.

Right-click the selected text or paragraph, move the cursor to Styles, and click Save Selection As A New Quick Style. The Create New Style From Formatting dialog box opens. Type a name for the style and then click OK. The style will appear in the Quick Style gallery and Style pane.

Notice the Modify button that appears in the Create New Style From Formatting dialog box. You can click it if you think the selected text is

not quite what you want and you want to make some changes.

New Style By Definition

You can create a style “from scratch” rather than from example text; a much more detailed method. To start, click in an area that has the Normal style applied and then open the Styles Pane and click the New Style button (in the lower-left corner).

Next, determine the properties of the new style. Give it a name and choose the Style Type. Choose an existing style to base the new style on if you wish, as well as the style for the following paragraph (if you are creating a paragraph style or linked style).

The options available in the Formatting section of the dialog box will vary depending upon the style type. When you choose Paragraph for the style type, the character formatting area (for font, font size, bold, etc.) is available, as is the paragraph formatting area below it. If you change to the Character style type, the paragraph formatting area is grayed out.

Click the Format button in the lower left of the dialog box if you want to define the style further. Again, the choices available will depend upon what type of style you are creating.

Choices

There are two checkboxes and a pair of radio buttons that let you specify how the new style will be displayed and where it will be available. Check Add To Quick Style List if you want the new style to appear on the Ribbon. Check Automatically Update *only* if you want a style to be updated when you change text that the style is applied to. For example, if you have text that uses a heading style that isn't bold but you apply bold to the text, the style itself will change along with all other text to which the style was applied.

Click Only In This Document if you want to restrict the new style to the current document. Click New Documents Based On This Template if you want the style to be available with new documents.

With practice, you can use the styles in Word 2007 to quickly customize your documents. ■

BY TOM HANCOCK

Excel 2007

Quick Studies
How-To

What-If Analysis

Spreadsheet

Advanced

2007 for
Windows
XP/Vista

Business (like life in general) is a constant game of asking, “what if?” questions. Excel helps you anticipate potential situations with a collection of What-If Analysis tools on the Data tab. They make it easy to explore various outcomes and save snapshots of them for quick reference and modification.

Scenarios

Scenarios let you save various groups of values and then apply them whenever you want to see what outcomes the various values would produce. These are handy for projecting something like financial outlooks with changing interest rates or corporate revenue under several factory production levels.

Scenarios are built on variations of existing data, so you'll need a worksheet with some numbers plugged in before you can create a scenario. Once your baseline numbers are in place, click the What-If Analysis button on the Data tab and select Scenario Manager. To create your new scenario, click Add. (Be sure to create your first scenario with existing data. Otherwise, you'll lose the original data when you change cell

When you click OK, Excel asks you to enter the revised values each cell will have in the scenario you're creating. Click OK again, and your new scenario is added to the list available in the Scenario Manager. To apply a scenario, click What-If Analysis and Scenario Manager. Choose the scenario you want to use and click Show.

You can change a scenario's settings at any time by opening Scenario Manager, clicking the scenario's name, and clicking Edit. This produces a dialog box like the one you used to create the scenario.

Goal Seek

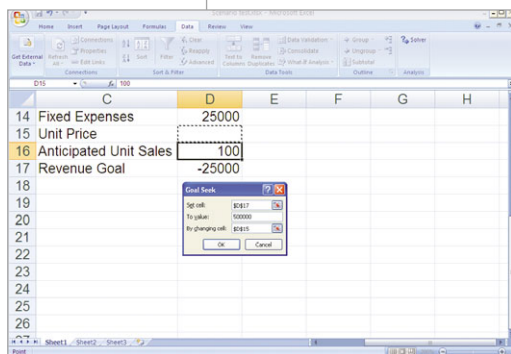
Goal Seek helps you figure out what has to happen to reach a specified goal. For example, let's say you need to figure out how much you'll have to charge for your product in order to make an acceptable profit. With Goal Seek, you can plug in the revenue goal you have in mind, your expenses, and the number of products you think you can sell and then let Excel find the target price point.

Get started by setting up several cells containing the relevant data. The key is creating a formula that calculates the result you're after. In our example, we created a Revenue formula that multiplies product price by unit sales and then subtracts expenses. Enter the expenses and unit sales in the proper cells and leave the product price blank.

Now choose Goal Seek on the What-If Analysis button. For Set Cell, click the grid icon and select the cell with the formula. In the To Value box, type the goal value. For the By Changing Cell box, click the grid icon and select the cell for Unit Price. When you click OK, Excel changes the appropriate cell to a value that produces the result you want from the formula.

If you'd like to pair up the analysis tools, you could use Goal Seek to find the numbers behind a specific revenue goal, then save that information in a scenario. Then you could use Goal Seek and scenarios to find and save other potential outcomes.

For more what-if work, check out Excel's Data Table feature. Data Tables let you see a formula's results using several different inputs. For example, you could see in one place how shifting postal and shipping rates affect your bottom line. See Excel's Help feature for details on using both features. ■



Use Goal Seek to determine the numbers you need to reach in order to attain a goal.

values for the first alternative scenario.)

In the dialog box's first field, type a name for the new scenario such as **Maximum Production**. Next, indicate which cells will have altered values in the scenario you're creating. Click the grid button to move your cursor onto the worksheet. When you click a cell, a flashing border appears around it to indicate that the cell will change in the scenario. You can drag to highlight multiple adjacent cells, or you can hold down the CTRL key while clicking nonadjacent cells to select them one at a time. Once all the cells are selected, click the grid button again to return to the Edit Scenario dialog box.

If you'd like to add a comment such as, “This scenario reflects a 10% postage increase in Q4,” type it in the Comment box. If you enter nothing, Excel adds a default comment recording who created the scenario and when.

BY TREVOR MEERS

Quick Tips

Secrets For Succeeding In Common Tasks

BY STEPHEN J. BIGELOW

Wireless Networks

Question: I'm setting up a high-speed wireless home network. Do I need to purchase all of my wireless devices from the same manufacturer?

Answer: You should be able to use wireless devices from any major manufacturer, as long as all of the devices support the same wireless communication and security standards. For example, if you're setting up a wireless-G network, all of your wireless devices should be certified to follow the 802.11g standard. Higher-speed wireless-N compatibility is a bit trickier, because the 802.11n standard has not yet been ratified—however,

wireless manufacturers should be compliant with the draft-N standard. Before purchasing a device from a different manufacturer, be sure that your point of purchase will allow you to return the product if you do run into compatibility issues.

Also, remember to select wireless devices that all support the latest wireless security standards, such as WPA2 (Wi-Fi Protected Access 2). Wireless devices that support WPA2 will also support older WPA and WEP (Wired Equivalency Privacy) security protocols if those are the lowest common denominator in your wireless network.

Wireless Networks

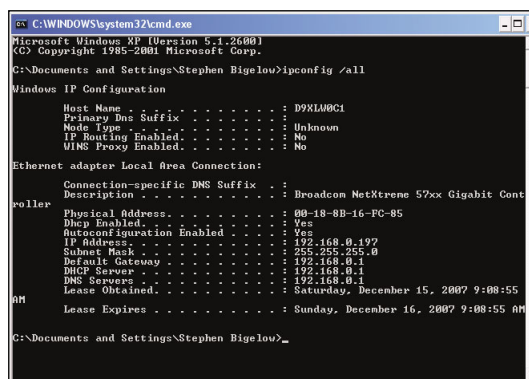
Question: I'm configuring my router, and I see MAC (Media Access Control) addresses and IP (Internet Protocol) addresses listed. How can I tell which MAC and IP address relates to which PC?

Answer: Unfortunately, computer identification is rarely ever intuitive at the hardware level. You will need to find the MAC address on each network PC in order to tell your PCs apart. It's easy to do. Just click Start, select Run, and type `cmd`. Click OK. Now type `ipconfig /all` at the command prompt and press ENTER. The PC will return a list of details about that system's NIC (network interface card), including the MAC address and current IP address.

concerned with the **MAC address**, which is a fixed code unique to that specific NIC or other network device, and it cannot be changed. The IP address can be helpful, but remember that the IP address is automatically assigned by DHCP (Dynamic Host Configuration Protocol) and can change over time. Now, when you configure the router, you can match the MAC addresses to your list and know who or what PC is using your network.

If you see a MAC address that is not on the list, you may have an unauthorized network user (perhaps a neighbor) using your network. Once you identify an unknown device, you can opt to block that MAC address at the router.

Repeat this process for every PC. Write the MAC and IP addresses on a piece of paper, denoting the corresponding PC (for example, Mom's PC or Living Room PC). For other network devices, such as print servers and network storage devices, you can find the MAC address printed on a label on the device. You are mainly



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Stephen Bigelow>ipconfig /all

Windows IP Configuration

Host Name . . . . . : D91A00C1
Primary Dns Suffix . . . . . : 
Node Type . . . . . : Unknown
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No

Ethernet adapter Local Area Connection:

   Connection-specific DNS Suffix  : 
   Description . . . . . : Broadcom NetXtreme 57xx Gigabit Controller
   Physical Address. . . . . : 00-18-0B-16-PC-85
   DHCP Enabled. . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes
   IP Address. . . . . : 192.168.0.197
   Subnet Mask . . . . . : 255.255.255.0
   Default Gateway . . . . . : 192.168.0.1
   DHCP Server . . . . . : 192.168.0.1
   DNS Servers . . . . . : 192.168.0.1
   Lease Obtained. . . . . : Saturday, December 15, 2007 9:08:55 AM
   Lease Expires . . . . . : Sunday, December 16, 2007 9:08:55 AM

C:\Documents and Settings\Stephen Bigelow>
```

Use Windows' IPconfig utility to determine the MAC (Media Access Control) and IP (Internet Protocol) address of each PC on your network.

Optical Media

Question: Is it OK to use CD/DVD holder albums with plastic sleeves, or do I need to use jewel cases?

Answer: You want to prevent scratches and cracks that can damage your valuable media. Jewel cases are the best protection; when handled properly,

the disc's data surface never actually touches anything. Plastic sleeves packed into a tight album do not offer the same protection because any debris caught up in the sleeve with the disc can easily scratch the surface while it's slid in or out or while it's packed up against other discs.

Security
Software

Question: My security software is up for subscription renewal, but the manufacturer wants as much money for the renewal as to buy the newer version outright. Which is better?

Answer: The problem is that antivirus and other security software is very competitive, and manufacturers are updating their products every year. The reason that your “renewal” is just as expensive as the newest version is probably that you are actually buying the newest version online—and

simply getting another year of updates in the process.

In some cases, you may be better off buying the boxed version every year. Should you need to restore your PC from a catastrophic data loss, you will have the original media available to you immediately. Otherwise, you’d need to locate any purchase paperwork, try logging on to the manufacturer’s Web site, and attempt to download the latest version from its online source once again.

Internet
Explorer

Question: Why does Internet Explorer fill in form entries or passwords for me as I type? Can I stop those actions?

Answer: That feature is called AutoComplete, and it is meant to be a convenience for Internet users by suggesting URLs, adding form entries, and suggesting recently used usernames and passwords. You can access the AutoComplete feature in IE6 by launching the browser and clicking Tools and Internet Options, selecting the Content tab, and clicking the AutoComplete button. You can aid security



by clearing prior form and password entries. Just click the Clear Forms and Clear Passwords buttons. If you want even more security, you can deselect the Web addresses, Forms, and

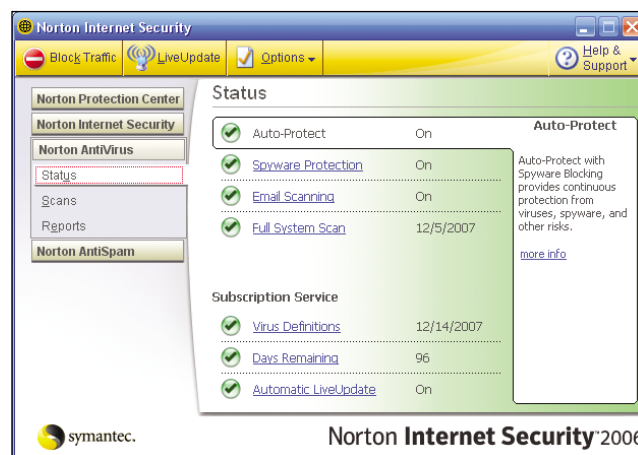
User Names And Passwords On Forms checkboxes. (In IE7, you’ll need to click the Settings button under AutoComplete to access these options.) Click OK to save your changes.

Enhance Web security by preventing Internet Explorer from automatically completing URLs, form entries, and passwords.

Security
Software

Question: How can I tell when my virus definitions were last updated? How do I know if the definitions need to be updated?

Answer: Security tools, such as NIS (Norton Internet Security), keep track of the last virus update. For example, open the NIS control panel and select the Norton AntiVirus entry. The detail list on the right will include the date of the last virus definition update. If you use broadband and have a current subscription, chances are that you are updated once a day, so expect the date to be very recent.



If you’re using dial-up or have opted to stop automatic updates, you can manually check for available updates at any time by connecting to the manufacturer’s Web site. For NIS, click the Live Update button and follow the wizard

to download and install any available updates.

Check your security software for frequent virus definition updates.

Search The Tech Support Center

Computers, printers, and other devices are wonderfully helpful tools—when they're working. But it's frustrating when a computer won't boot up or a printer won't . . . well, print! The only thing more frustrating is not knowing where to find answers.

Now it's easier than ever to find the information you need by searching SmartComputing.com's Tech Support Center. Simply type a word in the Search box and you'll find information on that topic from all different areas of the Tech Support Center, including Solutions Knowledgebase, Security & Privacy Web Log, Basic Troubleshooting Articles, How To Install, and many more! Topics ranging from hard drives and printers to the Blue Screen Of Death and that pesky Red X are all covered extensively in an easy-to-understand problem/solution format. Accessing this information is simple; here's how:



1. Go to SmartComputing.com and click the Tech Support Center link.
2. Enter a subject in the Search box and click Search. Avoid using words such as "problem" or "malfunction" and use the Top Subjects links whenever possible.
3. Read through each section to find numerous articles on your search topic.



Subscribers, keep in mind that you can save all of the articles in your Personal Library to use for future reference. Simply log in and when you find an article you would like to keep, click the Add To My Personal Library link at the top of the page. Create as many folders as you like in order to keep your information organized and accessible.

Fun Site Of The Day

Think you've reached the last page of the Web? Maybe you're just hungry for a new site to peek at over your lunch break. Either way, *Smart Computing* has you covered. Visit www.smartcomputing.com each day to see our Fun Site of the day.



PC Security

Unwelcome guests are . . . well, unwelcome, but they're especially annoying when they crop up on your PC. Learn how to rid your computer of malware by visiting our Tech Support Center today and clicking the How To Get Rid Of link on the right side of the page.



PC Maintenance

Maintain your PC for peak performance. Learn how at the *Smart Computing* Tech Support Center. Visit the Preventive & Regular Maintenance section to learn the basics of PC upkeep.



From *Smart Computing's* Daily Tip Archive

No Trespassing

Not every PC security tip requires a high-tech solution. One of the most effective ways of keeping intruders away from your data is to shut down your Internet connection and turn off the PC when you aren't using it. Doing so discourages co-workers, janitors, children, and other snoops from peeking at your files.



A Tale Of Two Bridges

Which Controls What & Why

Computer components such as processors, hard drives, and graphics cards seem to get more attention than chipset bridges; the former are shinier and more fun to brag about to your technically minded friends, but without bridges, a computer would just be an expensive brick. Read on to learn more about these essential components.

A **chipset** is a pair of chips that control communication between the various components on a motherboard, such as the CPU, graphics, and external device ports. In most cases, a chipset is divided into two separate units (the northbridge and southbridge), but occasionally a chipset manufacturer will combine them into a single chip that does the work of both. In this case, some of the tasks normally assigned to the northbridge are relegated to the CPU.

The two bridges historically communicated through a PCI (Peripheral Component Interconnect) bus, but this connection eventually proved to be a performance bottleneck and has been replaced by nonstandard proprietary connections that are specific to a given chipset.



The VIA CN896 chipset (www.via.com.tw/en/index.jsp) features integrated graphics and supports VIA C7, C7-D, and Eden (V4) processors.

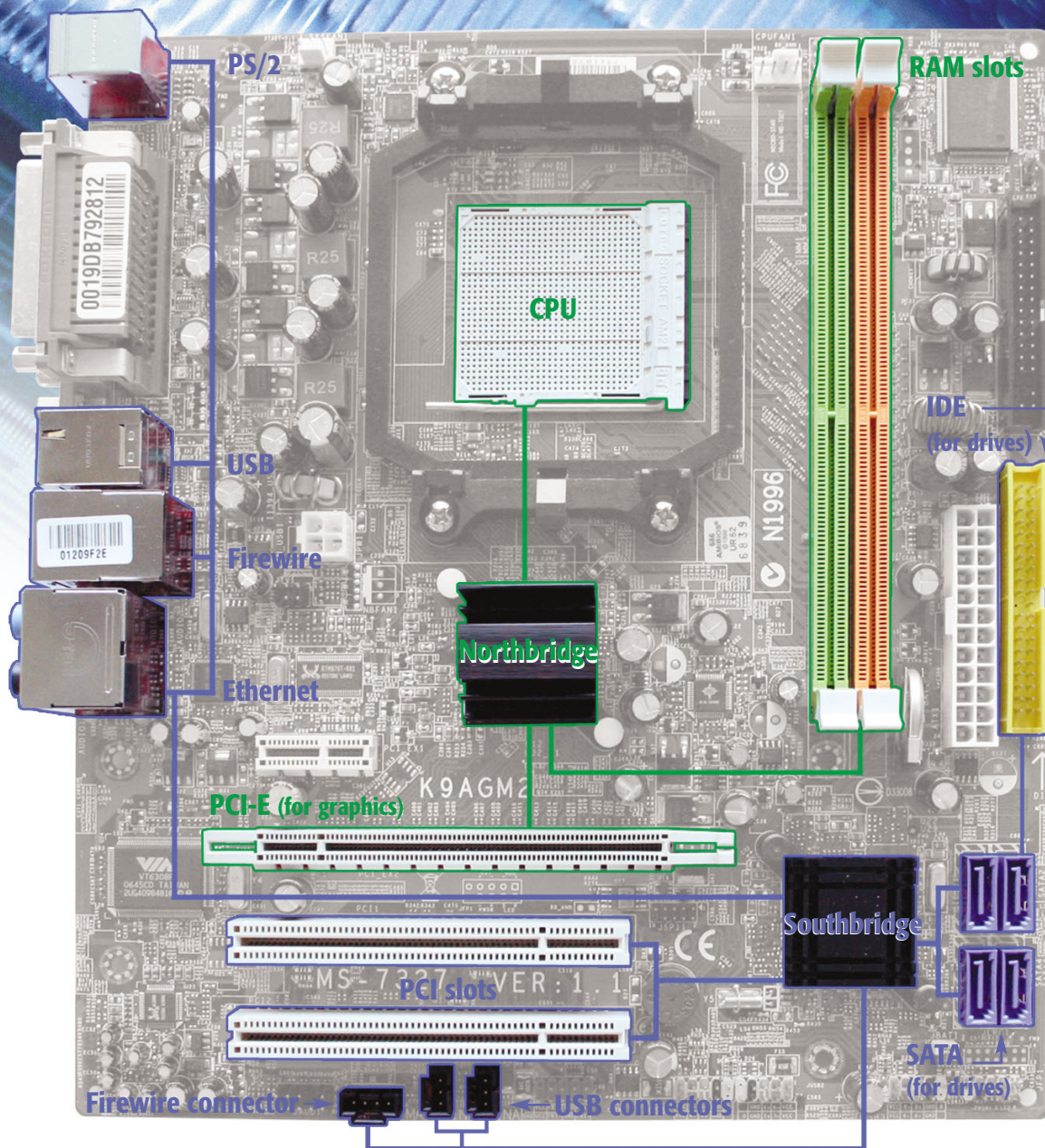
Bridges are the means by which the various components connected to and built into a motherboard communicate with one another. They are the primary factor in determining the amount, speed, and type of information that is sent between components.

Northbridge is a generic term for the half of the chipset that lies at the “north” end of the motherboard (where the CPU is located). On Intel machines, the northbridge is called the MCH (Memory Controller Hub). This chip handles high-speed devices such as the CPU, system memory, and graphics.

In some cases, the northbridge will contain a basic integrated video controller (although a third-party video card will almost always offer better quality), and it’s increasingly common for them to come with their own cooling systems, such as a heatsink or fan.

Southbridge, also known as the ICH (Input/Output Controller Hub) on Intel devices, is a generic term for the half of the chipset that is usually located near the PCI slots, far from the CPU. (It should be noted, however, that PCI Express slots are for graphics devices and are therefore connected to the northbridge.) This distance means the southbridge is responsible for slower functions than the northbridge, such as hard drive communications, most input/output functions such as USB and Ethernet, and peripherals running on PCI cards.

Southbridges now often contain integrated functions, such as sound card capabilities. Like the integrated functions in northbridges, a third-party device will almost always be better, but for basic needs, the integrated functions will suffice. Like their northern cousin, southbridges also occasionally come with their own cooling systems.



You can usually locate the bridges on most motherboards by first orienting the motherboard as if it were a map so that the CPU socket is at the top, or “north.” Second, observe the proximity of the chips to the components they power; for example, the northbridge will be surrounded by the CPU and RAM sockets. The southbridge will usually be below the northbridge, near the SATA (Serial Advanced Technology Attachment) ports and PCI slots.

The bridges are crucial to a PC’s power and features. Just as islands rely on bridges to reach mainland areas, the motherboard relies on the chipset to send information between components. If a bridge between two pieces of land was a narrow footbridge, there could be very little traffic; if the bridge was a wide suspended highway, traffic could flow freely. Likewise, a PC can only transmit information between its parts as fast as the bridges can carry it.

Although north- and southbridges are designed to work as a pair, **some motherboard manufacturers will mix and match the chips.** For example, they could pair a northbridge with two different southbridges to get two motherboards with slightly different options. This gives manufacturers the ability to further customize computers.

What To Do When . . . A Peripheral Attached To Your PC Suddenly Stops



Regardless of where the problem stems from, it's tempting to respond the same way when a part of your desktop PC stops working—with an adult version of a temper tantrum. Unfortunately, the tantrum does nothing to fix the problem.

So we'd like to guide you in troubleshooting a specific type of problem in a calm, logical, Spock-like manner. This walk-through will help you pinpoint and correct the source of the problem the next time a peripheral—printer, mouse, keyboard, monitor, speakers, etc.—quits on you.

Step 1: Check All Connections

Always start the troubleshooting process by checking all cables and power cords. Often, you'll need to check two cables or cords: the one that

connects the device to the power source and the one that connects the device to the computer. Checking the power cord is fairly simple. Make sure the cord is plugged in securely at both ends and that the cable isn't frayed or too tightly coiled.

The other connection might be slightly more complicated. For example, printers are typically connected to computers with a 25-pin cable at a parallel port. In addition to the 25-pin connector, the cable has two fasteners, one on each side of the pin interface, which must be lined up precisely with the port on your computer and connected tightly. If any of the pins in the connector look bent, try straightening them with a pair of needle-nose pliers. If you cannot get the cable to tightly connect to the port, you'll need to replace it.

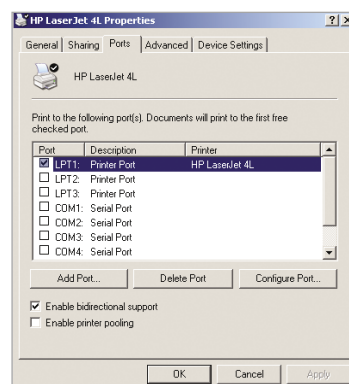
Don't forget the power strip. With so many devices that can be added to a system, it's common to need a power strip to provide juice for all of them. An inadvertently yanked power cord can disable one or multiple devices.

You should also attach the device to another PC to see if it works with that one. This is an especially good tip for plug-and-play devices that connect through USB ports and do not require you to install a driver.

Step 2: Boot Into The BIOS

Your peripherals use different types of connections to connect with your PC: USB ports, parallel

Make sure your peripherals are set to use the proper port on the computer.



ports, and the oldie-but-goodie serial (or COM [communication]) ports.

Regardless of the type of port your peripherals connect to, they must be enabled in the BIOS (Basic Input/Output System) in order to work. If the troubleshooting steps you've taken thus far don't solve the problem, reboot your system and press F2 (or the key that will let you enter your BIOS; it should be noted on-screen during startup) repeatedly as the PC boots.

Navigate to Advanced and then choose the USB/Parallel/Serial Configuration menu. Set each one to Enabled and exit the BIOS and save changes.

Step 3: Verify Ports

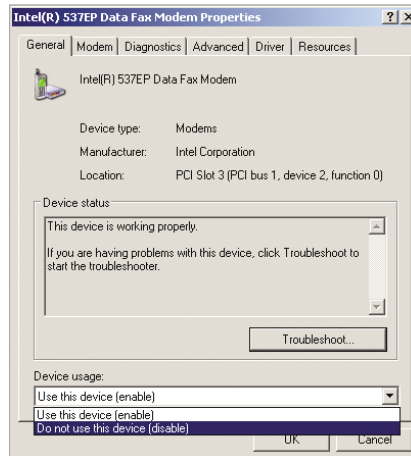
If your problem is a nonworking printer, you need to check the parallel or COM/serial port settings. Open the Control Panel (click Start and Control Panel) and find the icon for the nonworking printer. Double-click the Printers And Faxes icon (in Classic View), right-click the printer you are using, and choose Properties. Next, select the Ports tab. Make sure the proper port—in this case, LPT1—is checked. If it's not, change the port setting. Click OK and close the Control Panel.

Checking a USB port, on the other hand, is more of an external exercise. To see if the source of the problem is a bad port, unplug the device from one USB port and try it in another.

Step 4: Silence Conflicting Devices

If the correct port (parallel or COM/serial) is enabled but the device still isn't working, it could be that another device is trying to use the same port. To check this, we need to open the Device Manager.

Right-click My Computer and choose Properties. Next, click the Hardware Tab and the Device Manager button. Scroll down until you see the Ports entry and then double-click it to expand the category. Next, double-click the printer port (LPT1) and then click the Resources tab.



You can temporarily disable a device that is conflicting with a nonworking peripheral.

Look at the bottom of this screen to make sure there are no conflicting devices—items that might be trying to use this port. If a device is listed in this section, then find it in the Device Manager, right-click it, choose Properties, and on the General tab, disable the device by choosing that option from the Device Usage menu.

(NOTE: To reinstate the conflicting device, find its icon in the Control Panel, right-click it, and choose Properties. Then, using the Ports tab, reassign it a different port to use.)

If there is a problem with your device, you may also see an exclamation point on a yellow field, a red "X" (indicating a disabled device), a code indicating a problem with the device, or a blue "i" on a white field (indicating that the Use Automatic Settings feature is not being used on the device—not necessarily a problem). Double-click a component's icon to enable or get more information about the device.

Step 5: Reinstall Or Update Drivers

Peripherals depend on drivers, or programs, to communicate with the PC. If the physical connections and ports are set properly, then it's time to see if a bad driver is to blame.

It's possible for drivers to become corrupted, to conflict with other programs, or to be so old they must be

updated to work with, say, a new operating system. Remember, if you've had your desktop system for several years, the drivers that came with the components included in the system—such as the keyboard or mouse—are also several years old. Those older drivers, in particular, may need to be updated.

Even though we list this as step No. 5, checking the drivers should be one of your first thoughts if a peripheral suddenly stops working after you install another peripheral. The timing probably won't be a coincidence; the older peripheral likely has stopped working because of a conflict with the new device.

To investigate whether a bad/old driver is the problem, find the name of the nonworking device in the Device Manager and right-click it.

First, choose Properties to see what your operating system says about the status of the device. From the General tab, you could launch a troubleshooting wizard. But, because you've already ruled out other possible causes to the problem by following this troubleshooting guide, it's better to go straight to the Driver tab and launch the wizard to uninstall and then reinstall the device's driver. (Alternatively, you can choose Update Driver from the menu when you right-click the device in Device Manager.)

Find the installation disc that came with the device; it will have the original driver. Once you've reinstalled the driver, reboot your system.

If reinstalling the driver doesn't wake up the slumbering peripheral, go to the Web site of the device manufacturer to find, download, and install an updated driver.

Keep It Clean

We doubt a few too many cookie crumbs will incapacitate a keyboard or mouse. But it's worth pointing out that keeping your peripherals clean—free of dust, crumbs, and liquids—will help keep them in working order, as well. ■

BY RACHEL DEROWITSC

EXAMINING ERRORS

BY JEFF DODD

Problem: Every time a reader starts his laptop computer, he receives an error message that stops the boot process. When he clicks the error message, it goes away and the boot process continues.

Error message: IOCTL_SetPort could not be found.

Solution: We have seen complaints from other laptop computer users who report receiving this message after an automatic update modified



the drivers for their pointing devices. We believe you can remedy the situation by rolling back the driver for your laptop's pointing device.

You can do so by opening the Control Panel, clicking the Mouse

icon (you can find the icon in the Printers And Other Hardware category), and selecting the Hardware page of the resulting Mouse Properties dialog box. Highlight the name of your pointing device in the list of Devices—in most cases, you will see only one—and click the Properties button. On the Driver page of the resulting Device Properties dialog box, select the Roll Back Driver option. Verify your actions by clicking Yes and then close out of all open dialog boxes and reboot your PC. That ought to do the trick. ■

Problem: A reader receives a pop-up error message when trying to read email messages on his computer. The contents of the error message vary slightly from time to time, but the general message remains the same.

Error message: A runtime error has occurred. Do you wish to debug? Line 1. Error: Object expected.

Solution: This error message is known to occur under different system configurations. Most of the time it



can be corrected simply by deactivating the script debugging options in Windows. You can turn off the script debugging options by opening Internet Explorer, pressing the ALT key

to reveal the menu bar, selecting the Tools menu, and clicking Internet Options. On the Advanced page of the resulting Internet Options dialog box, select both Disable Script Debugging (Internet Explorer) and Disable Script Debugging (Other) so that check marks appear next to them. Next, deselect the Display A Notification About Every Script Error option so that a check mark does not appear next to it. Finally, click OK to save your changes. The error messages should be gone for good. ■

Problem: Each time a reader starts his copy of Windows XP, he receives an error message. He can click OK to close the error message and proceed with his regular computing activities. The reader also notes that he occasionally receives a similar error when trying to access the Web.

Error message: Error: Unable to locate system class: JAVA/LANG/Object.

Solution: This error message tends to occur when the Java software cannot find an applet to run. The error frequently corresponds to a spyware or adware infection, so the first step we recommend that you take is to run



reputable antispyware and antivirus utilities on your entire system. Remove any questionable code found during the scans and reboot the computer.

As an additional precautionary measure, we advise you to modify the System Configuration Utility so it will ignore the Java software that is set to run during the startup routine. You

can access the System Configuration Utility by opening the Start menu, selecting Run, typing `msconfig.exe` in the Open field of the resulting dialog box, and clicking OK. The System Configuration Utility will appear on-screen. Open the Startup page tab and review the resulting list of startup items for all entries that refer to the Wjview.exe or Javaw.exe files. For each corresponding entry you find, deselect it on the list so that a check mark does not appear next to it. Finally, click OK to save your changes and close the System Configuration Utility. Follow the on-screen instructions to reboot your PC. You should not see the error message when you restart the computer in the future. ■

Problem: After receiving a spreadsheet file from a friend, a reader attempted to open it. An error message prevented him from actually doing so.

Error message: This file does not have a program associated with it for performing this action. Create an association in the Folder Options control panel.

Solution: The problem here is that you have received a spreadsheet your computer cannot recognize. Maybe your computer cannot recognize the file because the file is damaged or corrupt. Maybe your computer cannot recognize the file because the file is mislabeled. Or maybe your computer cannot recognize the file because you have not installed a program that is able to open it.

We advise you start the troubleshooting process by running anti-virus and antispyware utilities, not only on the file in question, but also on the entire system. Let the utilities clean up any messes they find and then reboot the computer. Next, you should take a good look at the file in question. Open My Computer and locate the spreadsheet file on your PC (save the file to a folder on a local hard drive if you haven't done so already). Once you find it, open the My Computer's Tools menu and select Folder Options. On the View page of the resulting dialog box, deselect the Hide Extensions For Known File Types option and click OK. Return to the location of the spreadsheet file and take note of what type of file extension it carries.

The most common file extension for spreadsheets is .XLS. You can open .XLS files with almost any version of Microsoft Excel and many other popular spreadsheet programs. If your spreadsheet file carries a different file extension, you will have to

determine which program is associated with it. You can learn program associations for most file extensions by visiting Fileinfo.net (www.fileinfo.net), typing the three- or four-letter extension into the Search For A File Extension field, and clicking Go. You may discover that it is a common file extension from an early edition of a popular spreadsheet. Alternatively, what you think is a spreadsheet may actually be a database or some other type of file type. In a worst-case scenario, Fileinfo.net may not be able to provide any information at all about the file extension. If that happens, it's probably because you have a mislabeled file on your hands (if your friend typed .ZLS instead of .XLS, Fileinfo.net will not recognize the file format as a spreadsheet).



In any case, before purchasing new software to accommodate the file, you should try to create an association between the file and your existing spreadsheet software. To do so, locate the spreadsheet file in My Computer, right-click it, and select Properties from the pop-up menu. Click the Change button on the General page of the resulting Properties dialog box; an Open With dialog box will appear on-screen. Peruse the list of available programs for your spreadsheet program or click the Browse button to locate the spreadsheet software on your PC. Either way, click OK after selecting the program in question and click OK again to close the Properties dialog box. The next time you double-click the spreadsheet file, the program you selected will attempt to open the file. With any luck, it will succeed. ■

Have questions about an error message you've seen? Send us your message (errormessages@smartcomputing.com), and we'll try to decipher it. Tell us what version of Windows you're using, give the full text of the error message, and provide as many details in your explanation as possible. Volume prohibits individual replies.

FAST FIXES

Update For Windows Media Player 11 For Windows Vista

Problem: Microsoft has identified a problem in which a media file that is longer than 30 minutes may continue to play longer than the indicated duration of the file.

Solution: Download and install an update that corrects the problem. Go to support.microsoft.com and type **KB931756** in the Search box. Press ENTER. Click the **FIX: Content Plays Longer Than The Time That Is Specified By The Duration Element In A Windows Media Player 11 Playlist For Content That Is 30 Minutes Or More** link. On the resulting page, scroll down to the Download Information section and click the **Download The Windows6.0-KB931756-x86.msu Package Now** link under **Microsoft Vista For x86-Based Computers (All Languages)**. When prompted, choose to save the file to your hard drive. After the download is complete, locate the file you just downloaded and double-click it to launch the installer. Follow any instructions on the screen. After the update is installed, restart your computer.

support.microsoft.com

Adobe Photoshop Lightroom 1.3.1 Update

Problem: Your copy of Adobe Photoshop Lightroom does not support some cameras, such as the Canon EOS 1Ds Mark III, the Nikon D3, the Nikon D300, and the Olympus E-3.

Solution: Download and install the Lightroom 1.3.1 Update from Adobe's site. Go to www.adobe.com, point to the Downloads link at the top of the page, and click Updates from the drop-down menu. On the Product Updates page, find the listing for Adobe Photoshop Lightroom 1.3.1 Update and click the corresponding Windows link. Click the License Agreement link in the first paragraph

under Lightroom For Windows and read the agreement. When you are finished, click the Back button in your browser to return to the download page. Click the Adobe Photoshop Lightroom 1.3.1 link. Check the System Requirements listed on the resulting page to make sure that your system supports the update. Then click the Proceed To Download button. Click the Download Now button and choose to save the file to your hard drive when prompted. Before you install the update, you should back up your Lightroom library. Consult the Lightroom documentation for help backing up the library. When you use the program's backup feature, make sure that you select the Test This Database For Corruption checkbox. Once you've downloaded the update and backed up your Lightroom library, you can install the update. To do so, locate the file you downloaded, which is named **LTRM_WWEFG_win_1_3_1.exe**. Double-click the file to launch the installer and follow the on-screen instructions to complete the installation.

www.adobe.com

Security Update For Windows XP

Problem: Microsoft has identified a problem in Windows XP that could let an attacker take advantage of the Microsoft Message Queuing Service to take control of your computer.

Solution: Download and install a 997KB update that patches this security hole. Go to support.microsoft.com and type **KB937894** in the Search field near the top of the screen and click the Search button. From the list of search results, click the link for **MS07-065: Vulnerability In Message Queuing Service Could Allow Remote Code Execution In Windows XP And In Windows 2000**. On the next page, click the URL listed under IT Professionals. In the Affected Software table, click the

Windows XP Service Pack 2 link. In the blue Quick Details box, click the Download button. When prompted, choose to save the file to your hard drive. Locate the file you just downloaded, which is named **WindowsXP-KB937894-x86-ENU.exe** and double-click it to launch the installer. Follow any instructions that you see on the screen and then restart your computer when the installation is complete.

support.microsoft.com

FIX OF THE MONTH

Update For Internet Explorer For Windows XP Service Pack 2

Problem: Microsoft has determined that a problem in Security Update 942615 can cause Internet Explorer 6 in WinXP SP2 to crash when you try to view a Web site.

Solution: Go to support.microsoft.com. (If you cannot get to this Web site using IE because of the error detailed above, you could use another Web browser, such as Firefox, if you already have it installed.) Type **KB946627** in the Search field and click the Search button. On the next page, click the Internet Explorer 6 Crashes After You Install Security Update 942615 On A Computer That Is Running Windows XP Service Pack 2 link. Under the Workaround heading, click the Download The 946627 Package Now link. On the resulting page, click the Download button in the blue Quick Details box. When prompted, choose to save the file to your hard drive. Locate the file **WindowsXP-KB946627-x86-ENU.exe** on your hard drive, and double-click the file to install it. Follow any instructions you see on the screen and then restart your computer.

support.microsoft.com

Q & A

Need help with your hardware or software? Looking for simple explanations on technical subjects? Send us your questions!

Get straight answers to your technical questions from *Smart Computing*. Send your questions, along with a phone and/or fax number, so we can call you if necessary, to: *Smart Computing* Q&A, P.O. Box 85380, Lincoln, NE 68501, or email us at q&a@smartcomputing.com. Please include all version numbers for the software about which you're inquiring, operating system information, and any relevant information about your system. (Volume prohibits individual replies.)



Q While using my laptop computer, I began receiving messages that the hard drive was about to run out of free space. Despite uninstalling about a dozen programs, using Disk Cleanup, and moving all of my data files to an external hard drive, the amount of free space has ended up about the same as it was before I did all of those things, and I still keep getting the low hard drive space messages.

A Notebook computers have such small drives in comparison to desktop PCs that managing drive space can be a challenge. One tool we recommend to assist in finding the

files on your hard drive that are taking up the most space is JDiskReport (www.jgoodies.com/freeware/jdiskreport). This is a free tool that will analyze your hard drive, showing you what's taking up space and where it's located on your drive.

Some of the likely culprits are music files or videos or emails with large attachments. You'll want to be cautious deleting anything that isn't in your My Documents folder, as you may accidentally delete an important system file. Finally, you'll want to be sure to empty your Recycle Bin to reclaim space from the files you deleted.



Online

Q I have an HP desktop and a Dell laptop, and both of them have Windows XP Home and Norton Internet Security installed. About six months ago, both of them detected something called tracking cookies. Norton Internet Security can detect it but is not able to remove it. I manually choose Fix to remove it, but it comes back every time. I even tried to roll the PC back to factory default, but this did not remove it. Is there any way to remove it completely?

A Cookies are small files sent to your computer when you visit a Web site. Not all Web sites issue cookies, but it isn't unusual to receive a cookie when you surf the Web. When you visit a Web site that uses cookies, the Web site first asks your computer if you have a cookie from the Web site. If not, the Web site will send you a cookie that your browser stores for future use. This simple process works each time you visit the Web site.

Cookies are typically used to track where you go on a Web site or any preferences you've set for the Web site. Cookies can also be used for logging in to a Web site that requires a user account; instead of logging

in each time you visit the site, your cookie vouches for you.

Cookies are only visible to the Web site that issued them. However, many Web sites have advertising on them, and these ads are delivered from central servers. This means when you visit a Web site that has ads, you may get a cookie from that Web site *and* ads serving Web sites.

The reason this raises concerns is due to the impact on your privacy. If an advertising company wanted to, they could track which Web sites you visit. This is why third-party cookies are often referred to as "tracking" cookies.

Many browsers block third-party cookies; the default privacy setting on Internet Explorer blocks third-party cookies that don't have a compact privacy policy. However, this is easy for Web sites to circumvent. The best way to block third-party cookies is to open Internet Explorer, click Tools and Internet Options, and select the Privacy tab. Click the Advanced button and then select the Override Automatic Cookie Handling checkbox. Next, select Block underneath Third-Party Cookies and click OK. Click OK again to close the Internet Options menu, and you'll be safer from third-party cookies.



Windows

Q I have Windows Vista installed. Can I wipe out all the information on the hard drive and install WinXP onto my PC?

A If your current computer is capable of running Windows Vista, it should be fine for WinXP. The only problem you may run

into is missing drivers for WinXP. Drivers are small software applications that let Windows “talk” to the hardware device. Check with your PC vendor to see if they offer WinXP drivers. With the appropriate drivers in hand, be sure that before you install WinXP, you back up any important files or data.



Utilities

Q I am using Windows XP and want to back up selected files and photos to a CD in the E: drive. When I access the built-in WinXP backup program (by selecting Start, All Programs, Accessories, Systems Tools, and Backup), the only destinations I can save to are A: (the floppy disk drive) and G: (a removable drive). I have tried the Advanced System option, and it allows the same destinations. I can't select the E: drive by clicking the Browse button, either. How can I direct the program to save to the E: drive without having to buy third-party backup software?

A WinXP's Backup utility can only back up to a formatted disc, whether it's a CD-R (CD-recordable) or CD-RW (CD-rewriteable). If your CD drive came with disc-burning software, you'll need to first format the CD as a UDF (Universal Disk Format) disc. When you use the Backup utility, the files you select to back up need to be able to fit on a single disc; Backup can't use multiple CDs in one backup operation. You can expect to fit roughly 500MB or so

on a CD, so plan your backup strategy around this limit.

If you don't have any software that can format the disc for you, you should still be able to do a manual backup where you simply drag your files into a folder and then use WinXP's built-in CD-burning functionality to burn the folder to a CD. To do so, insert a blank CD into your drive and, if prompted, select the Open Writable CD Folder Using Windows Explorer option. Windows Explorer will launch, displaying the CD disk folder you just created. Or you can open Window Explorer (right-click Start and Explore) and select the CD burner.

Next, drag the backup folder you created into the CD disk folder and click the Write These Files To CD option. This will launch a CD Writing wizard that will walk you through the process of burning your files to the CD. Give your CD a name and click Next. The length of time it takes to burn your files depends on the size of files and the speed of your CD drive. Eventually, the finished CD will be ejected, and you'll have your backup safe for storage.



Windows

Q My Start menu is full of all the programs I've installed in the past, and there's no rhyme or reason to how they're displayed. Can they be organized, or am I stuck with what I have?

A Organizing the programs on your Start menu is simple. Click Start and All Programs and then drag a program to the position you want it to occupy. If you want to organize them alphabetically, you can simply right-click one item and select Sort By Name.

You can also drag folders to different spots in any hierarchy you choose.

Another way of organizing your Start menu is to pin frequently used programs to the left side of the Start menu. Simply right-click an application and select Pin To Start Menu to do so. When you pin a program in this fashion, you have immediate access to it instead of having to navigate through All Programs to find it. However, you won't want to have more than seven or eight applications pinned, or the menu will become cluttered.

Frequently Asked Questions

Answers to users' most common questions about Flat-Panel Monitors

An LCD is more energy-efficient than a CRT. However, there are some simple guidelines that will help you save even more on electricity.

FAQ How much power does a flat-panel monitor typically require? How does it compare to a CRT (cathode-ray tube) monitor in terms of power consumption? How can I save electricity costs if I use an LCD with my PC?

The majority of power used by an LCD is consumed by the backlight—a white light source that projects through the liquid-crystal panel to illuminate the colored pixels. Otherwise, power is consumed by the relatively small amount of electronics that operate the display interface and liquid-crystal matrix. At the high end, a 27-inch flat panel can require over 64 watts; a more typical 20-inch flat panel can require almost 50 watts; and modest 17- to 19-inch flat panels consume around 35 watts of power.

An LCD is more energy-efficient than a CRT. However, there are some simple guidelines that will help you save even more on electricity. First, employ the computer's Standby and Hibernate modes. When the PC goes idle, it makes the display idle, as well, shutting down the backlight. Second, if the PC is working on a background task that will prevent it from going idle, don't be afraid to simply turn off the display.

FAQ How long does the backlight last in an LCD? What happens when the light fails?

The pixels in LCDs do not generate their own light, so they need a separate light source. A backlight is basically a translucent white plastic panel that is evenly illuminated by a series of bulbs placed around the perimeter of the display. The backlight is then positioned behind the liquid-crystal matrix to provide the light that you see coming from the display.

The bulbs used in a backlight assembly should last for at least five years of regular use, but they will not last forever. The bulbs will dim over time and finally quit. This

usually manifests itself as uneven brightness from one side of the panel to another. If the bulbs in a backlight assembly have failed, you will need to have the display serviced or purchase a new display.

FAQ What is the best way to clean the surface of a flat-panel monitor?

LCDs are particularly delicate devices. A thin polarizing layer is typically added in front of the LCD glass. This helps improve contrast, but it is also sensitive to scratches and scrapes and can be ruined by harsh chemicals. This can make the flat-panel surface a bit tricky to clean.

The best way to clean an LCD is to simply wipe it gently with a dry, lint-free cloth. If there is a stubborn stain, you can moisten the cloth with a little water. However, never spray water or other chemicals on the panel directly.

FAQ What is the best way to dispose of a CRT monitor after upgrading to a flat-panel display?

Today, CRT disposal will require recycling—few (if any) municipalities will collect CRTs with ordinary trash. Start with the store (or Web site) from which you're purchasing the new monitor. The company may have a recycling program in place to accept your old equipment when new equipment is purchased. In many cases, you will probably need to pay a recycling fee in addition to the purchase price of the new display.

If the company will not take your old CRT and it still works, try giving it away to local community groups, religious groups, or other charitable organizations. If the CRT does not work, contact your local city offices for information about collection policies for old televisions, computers, appliances, and other items that cannot be placed in the trash. Remember that you will probably need to pay a small fee (typically \$12 to \$25) when you drop off the old monitor. ■

Are you having trouble finding a product or getting adequate service from a manufacturer? If so, we want to help solve your problem. Send us a description of the product you're seeking or the problem you're having with customer service. In billing disputes, include relevant information (such as account numbers or screen names for online services) and photocopies of checks. Include your phone number in case we need to contact you.

Letters may be edited for length and clarity; volume prohibits individual replies.



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A Sick Digital Photo Frame Infects A PC & A Twitchy Skype Adapter

I recently purchased four Smartparts digital photo frames: three 8-inch units and one 8.5-inch unit. I had been planning to give the frames as gifts, but when I tried to load them with photos, Norton alerted me to a virus file named Death.exe on the three 8-inch frames. I used Norton to remove the suspicious file on one of the frames, but it took my PC down with it. After several hours on the phone with Norton support, my system was up and running again. When I contacted Smartparts to request replacements, they agreed to send them right away. Now, it's been almost a week and I still haven't received the replacement frames. I've also stopped getting a response from the company. Can you get the ball rolling again?

Paul A. Gore
Coral Springs, Fla.

After the initial communication, Paul emailed us again to report that a Smartparts representative he spoke with admitted that the virus had been reported by other customers and was found to have originated at the factory. When we contacted Smartparts, the representative we spoke with said that Paul's complaint was the first he'd heard about frames coming from the factory infected with a virus, but that Smartparts was vigorously investigating the problem. The replacement frames (upgraded to the 10.4-inch models as per Paul's request) had been sent right away, but when they never showed up, Smartparts immediately authorized another shipment. When asked about the communication problems, the representative said that he had been unable to reach Paul at his email address.

Two weeks later, Paul told us that he had promptly received the replacement frames and that the company appears to have made good on its promise to resolve the problem. Later, we called Smartparts for an update on the

investigation into the afflicted frames. Our contact reported that Smartparts had conducted a limited recall and tested and reformatted all of the digital photo frames from the same production run, which numbered a few hundred. Although he didn't have access to the details of the investigation, he did say that the source of the virus might never be known.

I recently purchased a D-Link Skype adapter, but the device stopped working after a month of operation. Upon first reporting the problem, D-Link offered to send a replacement model, but because it was purchased in New York, D-Link USA would only ship to an address in the United States. I live in Canada, so I had to tell D-Link to send the replacement to an address I frequent in Florida and then wait until I was able to travel to test the replacement. When I finally got my hands on the replacement, I discovered that it, too, was faulty. I contacted D-Link again, but I have stopped getting a response. Can you step in?

Name and location withheld.

We emailed our D-Link contact and got a response a couple days later saying that a customer service representative would call to arrange the shipment of a new Skype adapter. He also said a technician would thoroughly test the unit before shipping it out and that it would be shipped to his address in Canada.

When the user received the replacement Skype adapter, however, it exhibited the same problems: The power light would not illuminate and the Vista Home Premium PC failed to recognize it. Because the previous unit had no trouble working on a Windows XP system (prior to malfunctioning), the user suspected that the problem was a software- or firmware-related issue. He repeatedly uninstalled and reinstalled the driver until the device was recognized and the power light came on. He now reports that the device is functioning as expected. ■

Sidetracked

This was a bad winter for productivity in our household. I spend most of my working time online, and my wife is finishing a degree that includes Web courses and streaming video, so it's a real problem when we can't connect. At work, at home, and even at our local haunts, we suffered a series of connectivity problems that, along with a little procrastination, prevented us from getting things done. We fought through both challenges eventually, and though you may not want to emulate my tendency to get sucked into off-season Phillies blogs, we did figure out a pretty reliable process for diagnosing connectivity distractions.

It all started with a funky router port. The uplink connection on my network switch is notoriously loose, so every time we move the computer, it wriggles free and we lose our Internet connectivity. I'm too cheap to replace the switch, and we're too forgetful to check the connection each time we clean, so instead of just checking movie times, we spent the first part of our Saturday evening trying to access various parts of our local network (successful) and the public Internet (not so much). We spent the next hour waiting to speak with our ISP's (Internet service provider's) tech support before they suggested we check our cable connections. We spent the next two hours watching "While You Were Sleeping" because we'd missed our movie times and local video store closing. The moral of the story: Check your cable connections first, or you'll end up watching old Bill Pullman movies.

The next weekend, we decided to try to get some work done in our local coffee shop, which provides free Wi-Fi along with the best yogurt and granola parfaits in town. Though its coffee is utterly dependable, its wireless network isn't. And it's hard to complain to the staff about a free service, especially when you're getting another refill *gratis*. When we had trouble connecting and had finished reading the ads for local bands and dog walkers, we set to learning a few things about wireless troubleshooting and the effects of too much caffeine. Windows' Wireless Network configuration tool (accessible from your System Tray when your wireless controller is enabled) is a good starting point—see which networks are out there and which ones have decent signal strength. If you're trying to connect via a secure



network, check with the owner to see if the encryption keys have changed. You also might have custom software that tries to take over your wireless connections. That ended up being our problem. My work laptop has to use special IBM connection software to connect to certain networks, but it can't connect to others. So I had to switch back and forth between Windows and IBM's application for managing the connection in order to move between the couch at home and the one at the coffee shop.

A few weeks later, I started having trouble accessing our company VPN (virtual private network). I would have normally been more than happy to

use any excuse for not working, but I had some urgent things to do before the holidays. I could get to my local network and to the public Internet, but couldn't always connect to their network (depending on what machine I used) and couldn't access every internal Web site (depending on which server it was on). I first tried testing my local network, my personal email, and public Internet sites, which let me know my connections were good and my ISP was available. I was able to connect from one machine, but not another, so I knew my firewall and router weren't entirely to blame. I'd like to say that I worked closely with tech support from my ISP and our help desk and that we configured my uncooperative machine in no time. I would have also liked to take January off. Neither happened.

I still can't get to our VPN from that computer. Which leads to the final connectivity lesson I learned this winter. Sometimes troubleshooting every problem can be its own distraction. Perfectly livable solutions can include "use another machine" or "try again later from somewhere else" if those options are available. Until necessity breeds some innovation on my part, or someone else has a bright idea, I'll just find other ways to keep on track, or not. ■

BY GREGORY ANDERSON

Gregory Anderson is a regular contributor to Smart Computing and several other technology publications. He keeps a sharp eye (with the help of thick glasses) on computing trends and enjoys working with geeks of all stripes—most of the time. Share your travails with getting and staying online at gregory-anderson@smartcomputing.com.

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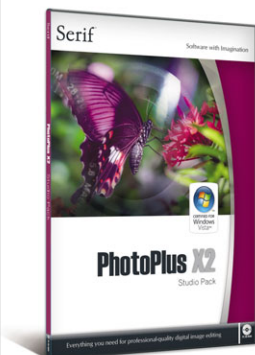
\$219 | AMD
ati.amd.com

Every gamer knows that the real action is found in the latest DX10 (DirectX 10) games. But AMD's first generation of DX10 graphics cards, the Radeon HD 2000 Series, simply couldn't compete with Nvidia's G80 Series. With the HD 3870, that has changed. The Radeon HD 3870 has the best features of AMD's last generation of graphics cards, such as dedicated UVD (Unified Video Decoder) hardware to lighten the CPU load when you're watching HD video, an integrated audio controller for true audio and video output over HDMI (High-Definition Multimedia Interface), and native CrossFire, as well as a handful of new features—a few of which Nvidia can't even boast with its latest offerings. The HD 3870 has a smaller and more power-efficient core and also supports DirectX 10.1 for more realistic effects in upcoming games. The HD 3870 has a 775MHz core clock, a 512MB GDDR4 (graphics double-data-rate) frame buffer clocked at 2.25GHz, and a peak power requirement of only 105 watts. When I put it to the test, the HD 3870 broke 10,000 in 3DMark06 and ran S.T.A.L.K.E.R. and the DX10-patched Company of Heroes at 1,600 x 1,200. I had to turn down the effects to play Crysis and World in Conflict, but at less than \$220, the HD 3870 is the budget gamer's best bet.

by Andrew Leibman

PhotoPlus X2 Studio Pack

\$79.99 | Serif
www.serif.com



If you're familiar with image-editing software, you know how difficult it can be to use an interface that's cluttered with buttons, menus, and other on-screen tools. Serif PhotoPlus X2 Studio Pack has a clean, easy-to-use interface. Its Quick Fix Studio features all the standard editing tools, such as crop, lighting alterations, and red-eye removal. The software comes with other helpful wizards, such as Makeover Studio, Filter Gallery, and Instant Artist, to let you easily fix and improve your photos.

For ease of use, PhotoPlus X2 features a How To tab that explains nearly all editing tasks, and you can even command PhotoPlus to make the edits for you. We particularly like the software's live split-view previews. For the advanced user, PhotoPlus X2 provides hundreds of image effects, and you can directly open and edit RAW images.

by Nathan Lake

iPod touch

\$299 for 8GB, \$399 for 16GB
Apple | www.apple.com

The iPod touch may be the perfect device for you if you want many of the iPhone's features at a fraction of the price. Although the iPod touch does not have a built-in phone, it is much more than just a portable music player. It has built-in Wi-Fi so you can connect to wireless access points and browse online using Apple's Safari

Web browser. You can watch movies, TV shows, and photo slideshows on the bright, 3.5-inch widescreen display. The touchscreen is highly responsive, and I was surprised by how accurately



Photo courtesy of Apple

the iPod touch registered the letters I pressed on the tiny on-screen keyboard. The Calendar program lets you not only view events and sync them with the calendar on your desktop system, but also create and edit events on the fly. You can also add entries to the iPod touch's Contacts address book and edit them, even when you're not near a computer. If you're looking for a great way to listen to music, watch videos, access online content, track appointments, and show off family photos, the iPod touch is an excellent choice.

by Kylee Dickey



Adesso AKB-220

\$34.99 | Adesso
www.adesso.com

Finding a travel-friendly keyboard isn't easy. The average keyboard is an unwieldy peripheral that won't fit into your already-full notebook tote. I've seen collapsible keyboards that don't take up much space in travel bags, but some of those keyboards have fragile hinges and springs—and many are smaller than a standard keyboard.

Enter Adesso's new AKB-220, which turns all the limitations of traditional keyboards on their heads. Thanks to a special rubbery material, the keyboard is soft, which means you can roll it up and pop it into one of your travel bag's pockets. The keyboard is waterproof and mostly crushproof. The only stiff portion of the board is a small component that handles the board's connector cable and status LEDs (light-emitting diodes). Even this part is reasonably tough.

The AKB-220 is a full-sized keyboard, complete with Function keys, arrow keys, and a number pad. I easily rolled the AKB-220 into a bundle that was a little smaller than a paperback book without damaging it. In fact, the keyboard even survived when I crammed it into my bag at one point, accidentally twisting the keyboard sharply.

Of course, flexibility and portability wouldn't mean much if the AKB-220 made typing a chore. Happily, its keys, though soft, are very responsive. I was able to type quickly after using the keyboard for about 15 minutes, and I was completely comfortable with the keyboard within a half hour. If you travel often and don't like your notebook's small keyboard, give the AKB-220 a try.

by Joshua Gulick



SoundBar

\$99.95 | Altec Lansing
www.alteclansing.com

Your speakers give voice to the media you experience on your PC, but if you still rely on an assemblage of speakers and a subwoofer, speakers built into your monitor, or no speakers at all, then it's time to give your aural environment an upgrade. I recently tested Altec Lansing's SoundBar, a compact 2+1 speaker system (dual stereo speakers and a bass driver) that fits beneath your flat-panel display. The SoundBar delivers sound that's as good as or better than that of many separate 2.1 speaker systems, thanks to Altec Lansing's sound-widening SFX technology and bass-thumping XdB technology. Another stand-out feature is the large volume dial that mutes the audio when pressed. On the right side of the SoundBar, you'll find handy headphone and auxiliary line-in ports. If you're looking for less clutter and better clatter, then consider the SoundBar the solution to all your PC audio ills.

by Andrew Leibman



HoMedics DocknParty

\$49.99 | HoMedics
www.homedics.com

As HoMedics puts it, the DocknParty is a "splash of color that breathes life into any room." The color aspect of this flying saucer-shaped iPod/iPhone dock and charger comes by way of five interchangeable faceplates (black, blue, green, pink, and silver) that pop on and off with little effort. The faceplates, as well as the DocknParty's small footprint, make the dock a great fit for dens, dorm rooms, or other smaller spaces. We can also easily picture the DocknParty in our kitchen playing audio-books while we cook meals. Audio quality was solid at lower frequencies thanks to the unit's built-in, full-range subwoofer, and the two neodymium speakers output satisfying audio across the midranges. Compatible with all dockable iPods, the DocknParty also has a Line-In jack for connecting non-iPod digital audio players. The DocknParty Ultra (\$129.99) includes an FM radio, an alarm clock function, and two additional speakers.

by Blaine Flamig



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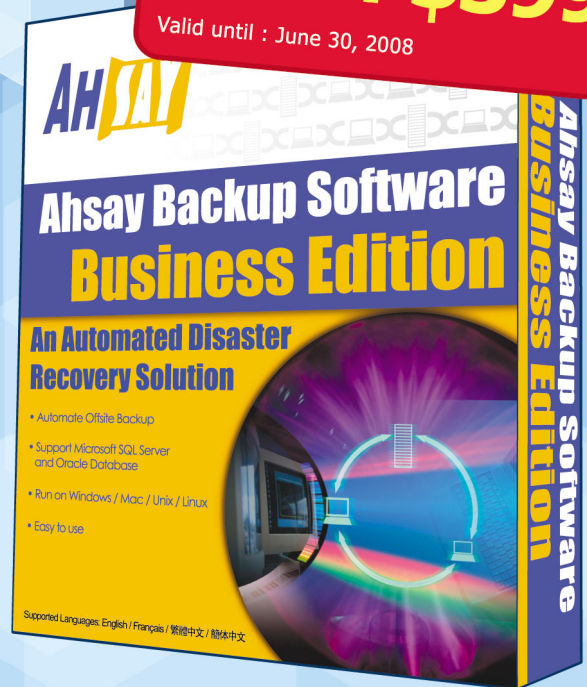
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